

Alcatel-Lucent OmniTouch Contact Center Standard Edition

CCd Expert



Part 1/2

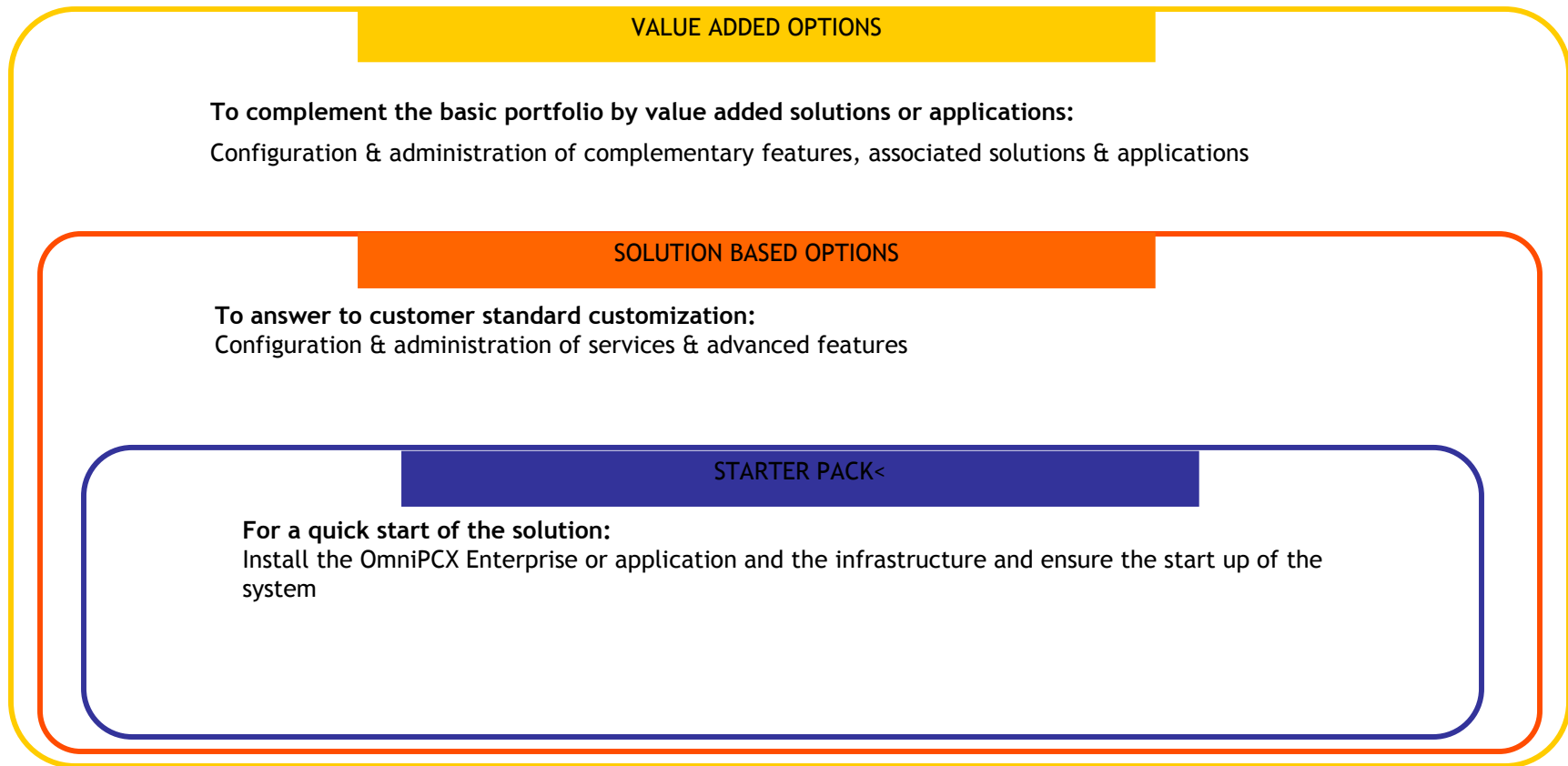
PARTICIPANT'S GUIDE

Alcatel-Lucent OmniTouch Contact Center 2008 Postsales training offer



Training
Jan, 2008

Legend



PREREQUISITES

Legend

Course Name
Reference

I = x h
C = x d
V = x d

represents an optional training course, not involved in certification program

Course Name
Reference

I = x h
C = x d
V = x d

represents training courses involved in ACSE certification

Course Name
Reference

I = x h
C = x d
V = x d

represents training courses involved in ACFE certification

Course Name
Reference

I = x h
C = x d
V = x d

represents training courses involved in AQFP certification

Course Name
Reference

I = x h
C = x d
V = x d

represents a free training guide, not involved in certification program

Course Name
Reference

I = x h
C = x d
V = x d

represents prerequisite training courses that are not involved in certification program

- I = x h

stands for Individual learning, in hours
- C = x d

stands for Classroom learning, in days
- V = x d

stands for Virtual learning, in days

Alcatel-Lucent OmniTouch Contact Center Standard Edition R8.0

Newcomers

OTCC Standard Edition VALUE ADDED OPTIONS

OTCC Standard Edition SOLUTION BASED OPTIONS

Duration: I = 3 h and C = 13 d

Recommended minimum Track for certification
ALU OmniTouch Contact Center R8 - ACSE

CCD Expert
OTCCTE802 C = 5 d

OTCC Standard Edition STARTER PACK

Duration: I = 3 h and C = 8 d

Recommended minimum Track for certification
ALU OmniTouch Contact Center R8 - ACFE

CCD Advanced
OTCCTE801 C = 5 d

CCD Starter
OTCCTE800 I = 3 h
C = 3 d

Associated Solution CCo

CCoutbound Expert
OTCCTE804 C = 5 d

Associated Solution CCivr

CCivr Advanced
IVR0TE801 C = 5 d

CCivr Starter
IVR0TE800 C = 5 d

Advanced Call Routing

ACR Advanced
OTCCTE803 C = 5 d

OTCC SE Tap-lab
OTCCTA0A5 or
OTCCTA0A6 C = 3 d
Or
C = 1 d

PREREQUISITES

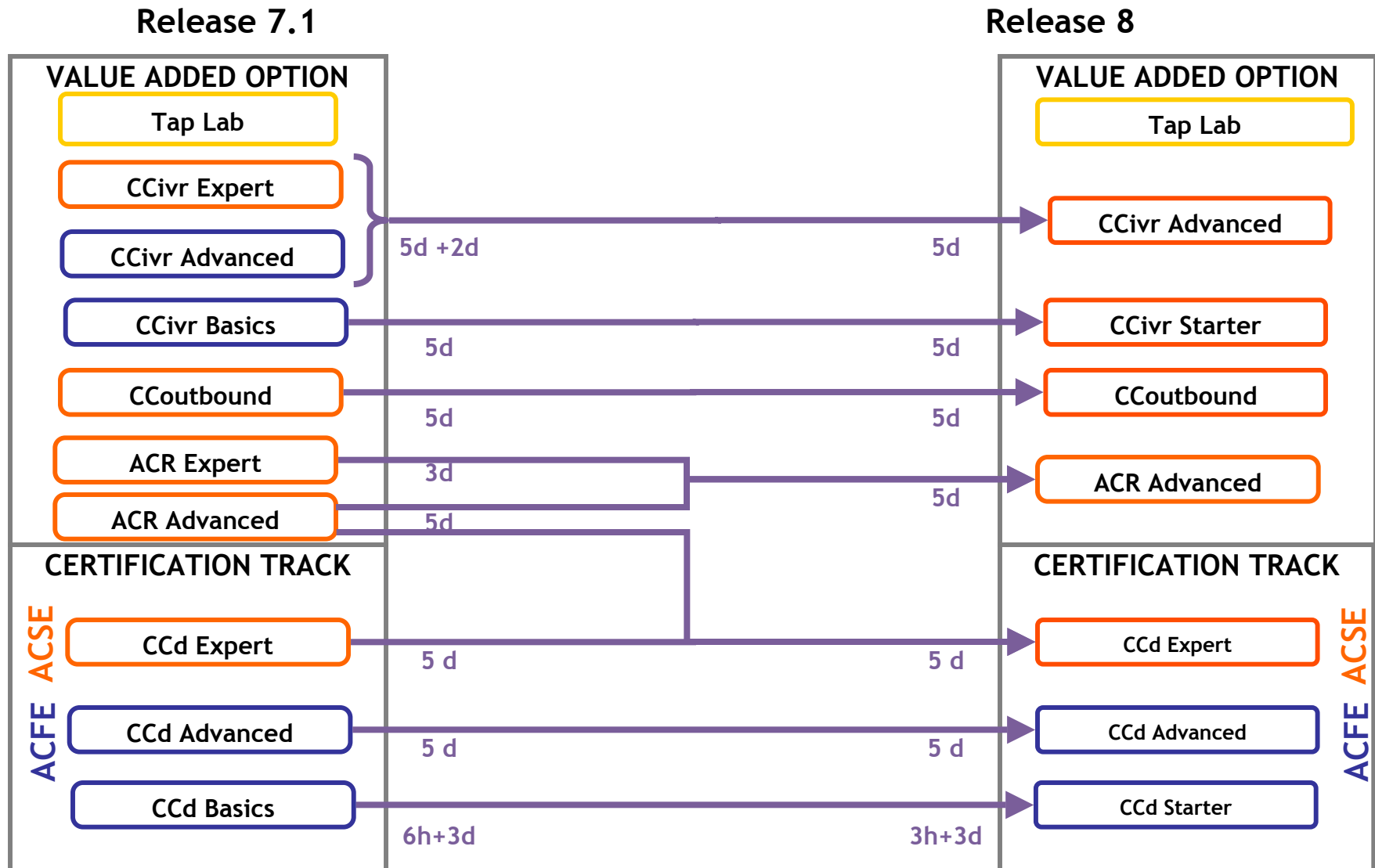
Starter Pack
Enterprise
ENTPTE800 I = 8 h
C = 10 d

or

Introduction to
OmniPCX Enterprise
ENTPTE899 I = 6 h

Alcatel-Lucent OmniTouch Contact Center Standard Edition R8.0

Newcomers Curricula R7.1 vs R8



Alcatel-Lucent OmniTouch Contact Center Standard Edition R8.0

Newcomers

PREREQUISITES

Core Enterprise

- Global overview
- Management tools
- Users management, multi line
- DECT users with IBS
- IP Phones (static & dynamic)
- Internal DHCP
- Tel features, prefixes & suffixes, COS
- Speed dial numbers
- Operators, Entities
- Voice guide, MoH
- 4645 voice mail
- External features : TG, DID, Translator
- External COS
- SIP trunking
- ARS
- RMA features & alarms
- Backup & restore
- OPS
- ...

or

**Starter Pack
Enterprise**
ENTPTE800

I = 8 h
C = 10 d

**Introduction to
OmniPCX Enterprise**
ENTPTE899

I = 6 h

Introduction to OmniPCX Enterprise :

- OmniPCX Enterprise offer
- OmniPCX Enterprise architecture
- Hardware overview
- Start & stop the system
- Management tools
- Backup & restore

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Newcomers

OTCC Standard Edition STARTER PACK

CCd Starter

- CCd Overview
- CCd configuration with the CCs
- Agent Overview
- Agent/supervisor functions
- Routing & Distribution rules
- Calendar

OTCC Starter
OTCCTE800

I = 3 h
C = 3 d

CCd Advanced

- CCs customization
- Call position announcement in queue
- Multilingual voice guides in CCd
- Interactive queuing
- Automated Attendant
- Wallboards Manager
- Statistics customization
- Translation
- Redundancy

OTCC Advanced
OTCCTE801

C = 5 d

OTCC Standard Edition SOLUTION BASED OPTION

CCd Expert

- CCd in network
- CCs Server
- CC Agent application
- Home workers agents, CCagent
- Introduction to ACR
 - ASM module
 - Last called agent rule
 - Individual Skill mapping

OTCC Expert
OTCCTE802

C = 5 d

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Newcomers & Experienced

OTCC Standard Edition VALUE ADDED OPTIONS

OmniTouch Call Distribution Tap-lab

- The participant selects himself the subjects and topics he wants to cover
- A technical and pedagogic assistance is provided by a trainer
- Examples of subjects that can be covered:
 - Voice guide management
 - Call flow management
 - CCd in network
 - Wall Board Management
- Other

**OTCC SE
Tap-lab**
OTCCTA0A5

C = 1 d

**OTCC SE
Tap-lab**
OTCCTA0A6

C = 3 d

Alcatel-Lucent OmniTouch Contact Center Standard Edition R8.0

Certification Offer

CERTIFICATION

**OmniTouch CCd
R8 ACSE**
OTCCTC0C3

C = 1 d

In classroom
(MCQ-60 Questions + LAB)

CERTIFICATION

**OmniTouch CCd
R8 ACFE**
OTCCTC2C3

I = 45 mn

Web exam
(MCQ-30 Questions)

Alcatel-Lucent OmniTouch Contact Center Associated solutions CCivr Newcomers

OTCC Standard & Premium Edition VALUE ADDED OPTIONS

CCivr BASIC:

- Installation
- Development of Voice applications using the Application Generator
- Use of Variables, Audiotext, Automated Attendant, Text To Speech,
- Voice Mail features, Stream synchronization, Subroutines
- MS Access database connection
- Management of exceptions, Edition of statistics
- Application using transfer to CCd pilots

CCivr Starter
IVR0TE800

C = 5 d

CCivr Advanced
IVR0TE801

C = 5 d

CCivr ADVANCED:

- FAX facilities
- Email exchanges
- Complex CCd integration, Interactive queuing
- COM objects integration
- Oracle database connection
- Automatic Speech recognition (ASR)
- OLE DB database connection
- Switching calls applications

OmniTouch CCivr Tap Lab

- The participant selects himself the subjects and topics he wants to cover
- A technical and pedagogic assistance is provided by a trainer
- Examples of subjects that can be covered:
 - Manage automated attendant
 - Manage database connection applications
 - Manage e-mail applications
- ...

**OmniTouch CCivr
Tap-lab**
IVR0TA0A2

C = 2 d

Alcatel-Lucent OmniTouch Contact Center Associated solutions C Coutbound Newcomers

OTCC Standard & Premium Edition VALUE ADDED OPTIONS

CCoutbound EXPERT:

- Installation CCo server and MS SQL
- CCo campaigns management
- CCagent integration
- Scripting tool functions
- Trouble shouting
- Statistics

**CCoutbound
Expert**
OTCCTE804

C = 5 d

**OmniTouch
CCo Tap Lab**
CCDOTA0A8

C = 2 d

OmniTouch C Coutbound Tap Lab

- The participant selects himself the subjects and topics he wants to cover
- A technical and pedagogic assistance is provided by a trainer
- Examples of subjects that can be covered:
 - CCagent integration
 - CCo installation and configuration
 - CCo campaign management
 - CCo scripting
- ...

Alcatel-Lucent OmniTouch Contact Center Associated solutions CCivr & CCoutbound Certification Offer

OmniTouch CCivr
ACSE
IVR0TC0C6

C = 1 d

In classroom
(MCQ-60 Questions + LAB)

OmniTouch CCo
ACSE
OTCCTC0C4

C = 1 d

In classroom
(MCQ-60 Questions + LAB)

Alcatel-Lucent OmniTouch Contact Center Associated solutions ACR

Newcomers

OTCC Standard Edition VALUE ADDED OPTIONS

ACR ADVANCED

- Call characterization,
- Agent Selection Module scripts design
- ACR statistics and Real Time reports
- External Database connection (select request)
- Describe the Virtual ACR principle
- Integrate the new object in network configuration
- Test the distribution using internal ASM and external ASM
- Name the restrictions and the limits of ACR in network architecture
- Test the impact of virtual ACR lock
- String handling
- Call procedure (external database)

ACR Advanced
OTCCTE803

C = 5 d

OmniTouch ACR
Tap-lab
CCD0TA0A2

C = 2 d

OmniTouch ACR Tap Lab

- The participant selects himself the subjects and topics he wants to cover
- A technical and pedagogic assistance is provided by a trainer
- Examples of subjects that can be covered:
 - ACR management
 - Rules overview and management
 - Management of the internal database
 - Scripting possibilities and example
- Other

The background is a vibrant yellow with subtle, abstract wavy lines that create a sense of movement. A solid white horizontal bar is positioned at the bottom of the image.

www.alcatel-lucent.com

REFERENCE	OTCCTE802US	DELIVERY LANGUAGE	English (course material in English)
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DURATION e-learning c-learning v-learning**5 days****METHODS**

Virtual self-paced training on the computer

Traditional classroom or practical sessions with tutorials (TAP LAB)

Tutored virtual training sessions accessible via an internet connection

MAXIMUM NUMBER OF PARTICIPANTS 12**PUBLIC**

System Installers in charge of the OmniTouch Contact Center Standard Edition configuration and maintenance

OBJECTIVES

At the end of the course, the participant will be able to:

- Install, configure and maintain a complete CCd application on OmniPCX Enterprise
- Set up a multisite configuration
- Implement basic ACR features

PREREQUISITES

- To have attended the Alcatel-Lucent OmniTouch Contact Center Standard Edition **CCd Advanced** course

PROGRAM DESCRIPTION

- To describe the software architecture
- To describe and configure a CCd in an ABC Network
- To describe and implement the CCd interfaces (WMI, CRI, RTI)
- To describe, install and configure the CCagent Application in a simple environment (basic components of the CCa server and client)
- To describe & Install the CCs server (internal & external)
- To describe the ACR distribution principle
- To describe the Agent Selection Module principle
- To manage the Agent Selection rules
 - Last called agent
 - Individual skill mapping
- To implement the ACR through CCsupervision
- To manage the agent and caller profiles
- To manage the call routing from waiting rooms
- To create simple scripts for the Agent Selection Module
- To use the script debugger

DOCUMENT CHANGES

Alcatel-Lucent OmniTouch Contact Center Standard Edition CCd Expert

File reference: OTCCTE802US

Issue	Date	Issue	Date
01	04/08		
02	07/08		

GENERAL SUMMARY

Part 1

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FEEDBACK SHEET

In order to improve the quality of the documentation, please report any errors found by returning this sheet to the address below.

CHAPTER	PAGE	DESCRIPTION

Please return this sheet to:

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Alcatel-Lucent OmniTouch Contact Center Standard Edition



Caller / called Filtering



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1

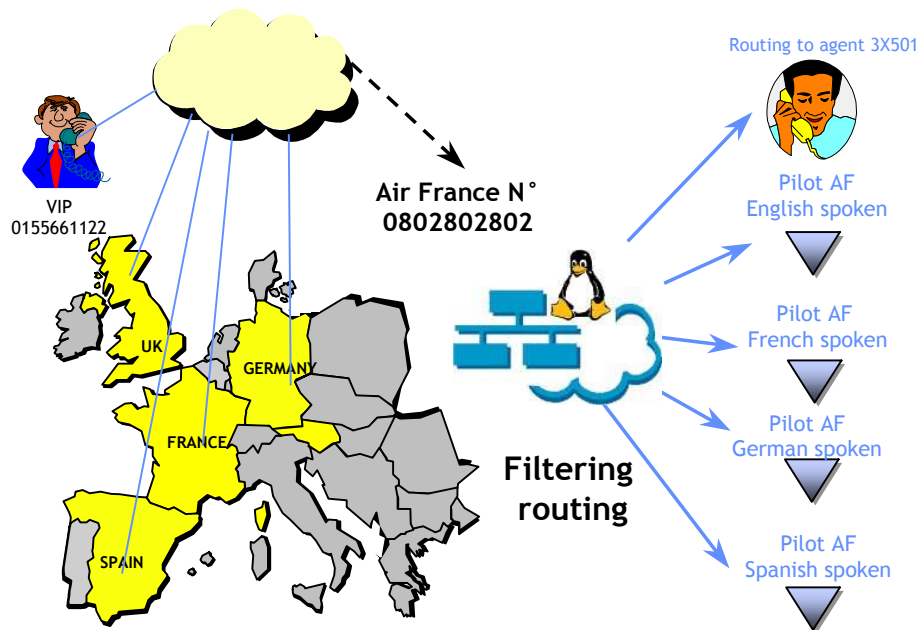
OBJECTIVES

- ◆ To create the filtering numbers
- ◆ To create some abbreviated numbers for the filtering routing

■ Caller / called Filtering purpose

- Caller and called party number filtering enables calls initially directed to a given number (called filtered number) to another number, determined according to:
 - caller number,
 - called number,
 - installation status (day, night, status1, status2),
 - the teleservice requested (telephone, fax, etc.).
- Filtering applies to external, internal (ABC network) and local calls
- Filtering works with all types of protocol that provide called and caller numbers

- Reach a specific directory number depending on
 - The calling number
 - The called number (the number dialed)



■ Description of the selection mechanism

- Selection is performed in two steps:
 - First, according to the called number and the status of the installation and the teleservice requested, an index is determined. This index is called the filtering index.
 - Then, according to the caller number and filtering index, the routing number is determined. This routing number is the number that will really be called.
- In cases where the routing number is not managed or the caller number could not be identified (not provided or not found in the abbreviated number table) the overflow number is used, this is determined according to the status of the installation and the teleservice

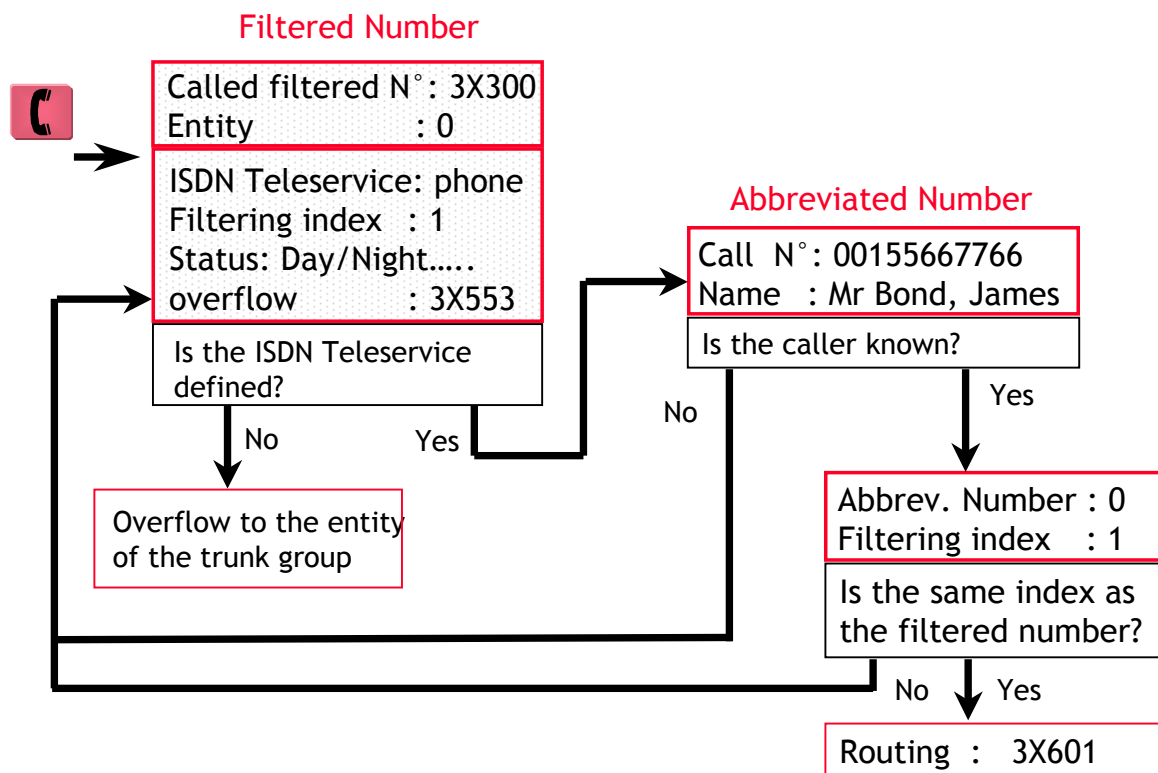
Note:

Called filtered numbers are declared in the PBX with the following parameters:

- an entity number.
- for each status of the installation and each type of ISDN service, the following are specified:
 - a filtering index.
 - an overflow number.

The installation status taken into account to determine the filtering index is the entity status associated with the called filtered number.

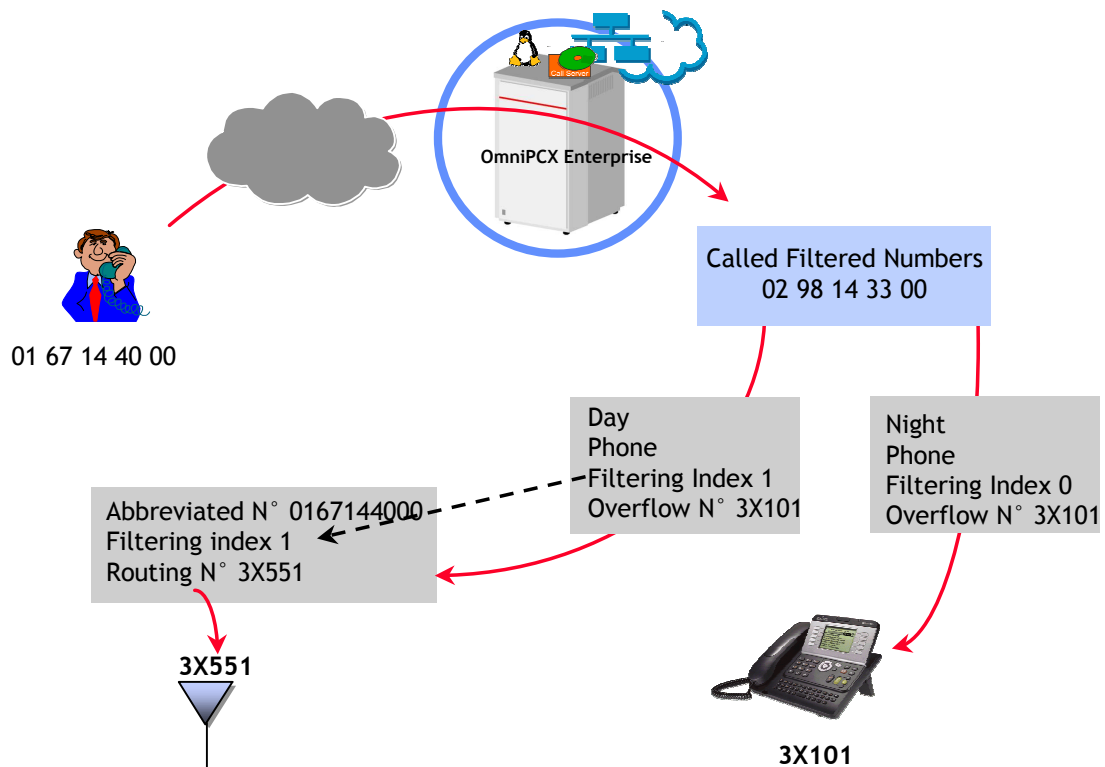
The overflow number is used if the routing number cannot be determined (for example, caller number not received).



2000 indexes possible

500 Called filtered prefixes

The index number is the relation between the abbreviated number and the routing number associated to the called number



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6

Called filtered number creation

/translator/called filtered number

Directory number: 3300

Entity number: 0

/translator/called filtered number/go down hierarchy

ISDN teleservice: Phone

status (night/day/mode1/mode2): Day

filtering index: 1

overflow number: 3x101

Calling number analysis

range creation

/abbreviated number/abb. number by range

abb. number creation

/abbreviated number/abb. number by range/go down

Range number: 0

Abbreviated N°: 0

Call Number: 00167144000

Filtering index

/abbreviated number/abb. number by range/go down/caller N° Filtering

Range number: 0

Abbreviated N°: 0

Filtering index: 1

Routing number: 3X501

■ Called filtered number creation

● /Translator / filtered called number

- Directory number
- Entity number

● /Translator / filtered called number / Descend hierarchy

- ISDN teleservice: phone, data, fax G3, fax G4, other
- Status: night/day/mode1/mode2
- Filtering index: 0 ... 1999
- Overflow number

□ Note:

- Teleservice filtering objects must be created for each Called Filtered Number. Here, the filtering index and the overflow number corresponding to a given status of the installation and teleservice are specified.
- It is the correspondence between the index declared here and an index declared in abbreviated numbers that determines the routing number

Note:

Teleservice filtering objects must be created for each **Called Filtered Number**.

Here, the filtering index and the overflow number corresponding to a given status of the installation and teleservice are specified.

It is the correspondence between the index declared here and an index declared in abbreviated numbers that determines the routing number.

ISDN teleservice: telephone, data, Fax 3, Fax 4, others.

■ Calling number analysis

● Speed dialing range creation

- /Speed Dialing / Spd Dl Numbers by range / Review/Modify
 - Range number: 0...399
 - Index for 1st speed dial number: 0...14999
 - Length for speed dialing numbers: Number of speed dialing numbers
 - Number of digits: 0 .. 5

● Speed dialing number creation

- /Speed Dialing / Spd Dl Numbers by range / Descend hierarchy
 - Range number:
 - Speed dialing N°:
 - Call Number:

● Filtering index

- / Speed Dialing / Spd Dl Numbers by range /caller N° Filtering
 - Range number:
 - Speed dialing N°:
 - Filtering index:
 - Routing number:

■ Prior Management:

- External callback translator is mandatory for the external caller recognition
- Translator / External Numbering Plan / Ext. Callback Translation
 - Basic Number: Enter the area code, i.e. the first digit(s) of the number received, indicating the area which is the source of the call.
 - Example: A for an international call, DEF for default, 00 for international calls ...
 - Nb.Digits To Be Removed: Enter the number of characters to be deleted at the start of the number received
 - Example: 1 to delete the A
 - Digit To Add: Enter the digit(s) to be added which correspond to the prefix

■ Commands

- `tcalledfilt`: list of filtered numbers
- `calledfilt <filtered number>`: routing for this number
- `tabranfilt`: list of abbreviated numbers filter

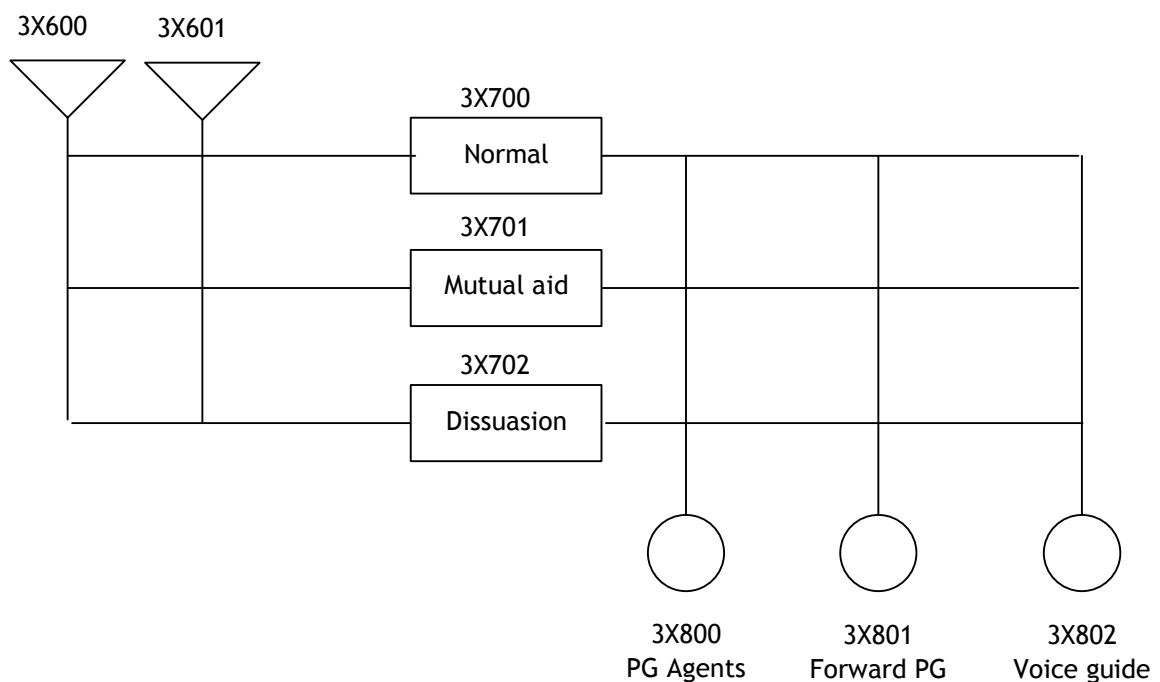
HANDS-ON EXERCISES

OBJECTIVE

- To learn how to use the filtering feature

MANAGEMENT

1. Create the following Contact Center matrix on your system



Create the Contact Center objects:

- 2 pilots, 3 waiting queues and 3 processing groups (X=Node Number)
- 3 “ACD authorized” sets (3X000,3X001,3X002)
- Two “agent” sets (N°:3X500 and 3X501)
- One “supervisor” set (N°:3X502)

2. Manage the routing & distribution rules:

In normal state, the pilot 3X600 is connected first to the normal waiting queue; this one uses the agent processing group. In case of congestion, the mutual aid waiting queue will be used.

This waiting queue is connected to the forward processing group (forward to the analog set 3X010)

In normal state, the pilot 3X601 is connected first to the normal waiting queue; this one uses the agent processing group. In case of congestion, the dissuasion waiting queue will be used.

This dissuasion waiting queue is connected to the voice guide processing group (voice guide: 710; "All agents are busy, please call back later")

3. Caller / called filtering configuration

Create a filtered number: 02CC43x333

Where CC is the room number

X is the node number

When a customer calls from France, the call is routed to:

- Pilot 3X600 during the day
- Agent 3X500 during the night

When a customer calls from England, the call is routed to:

- Pilot 3X601 during the day
- Agent 3X500 during the night

When a customer calls from another country, the call is routed to the analog set 3X010, whatever the entity status (day, night..)

4. Test some maintenance commands

HANDS-ON EXERCISES SOLUTIONS

OBJECTIVE

- To learn how to use the filtering feature

MANAGEMENT

1. Creation of the Contact Center matrix

- Manage the ACD prefix: go to “Translator / prefix plan / create”

```
Review/Modify: Prefix Plan
Node Number (reserved) : 1
Instance (reserved) : 1
Number : 12

Prefix Meaning + Local Features
Local Features + ACD Prefixes
```

- Manage the “ACD authorized” sets: go to “Users”
 - Example given: X = node number = 4
 - Do this management for the sets 3X000,3X001,3X002

```
Review/Modify: Users
Node Number (reserved) : 1
Directory Number : 34000

Directory name : pro acd
Directory First Name : one
Location Node : 1
Shelf Address : 0
Board Address : 0
Equipment Address : 0
Set Type + 4035T
Phone Features COS : 0
ACD station + ACD authorized phone set |
```

- Allow the “ACD prefix” use in the “ACD authorized phone set” C.O.S: go to “Users” & check the “phone features COS”
 - Go to: “classes of service / phone features COS “

```
Review/Modify: Phone Features COS
Node Number (reserved) : 1
Instance (reserved) : 1
Phone Features COS : 0

PCX Services
Speed call to associated set : 1
Access Callback list : 0
Last Caller Callback : 0
Paging call answer : 0
Voice Mail Access : 0
Wake-up/appointment reminder : 0
Tone test : 1
Collect telex : 0
Collect text : 0
Collect fax : 0
Message deposit : 0
Text deposit : 0
Image deposit : 0
ACD Prefixes : 1
```

- Manage the “agent and supervisor sets” sets: go to “Users”
 - Example given: X = node number = 4
 - Do this management for the sets 3X500,3X501,3X502

```
Review/Modify: Users
Node Number (reserved) : 1
Directory Number : 34500

Directory name : agent
Directory First Name : one
Location Node : 1
Shelf Address : 255
Board Address : 255
Equipment Address : 255
Set Type + 4035T
ACD station + Agent
```

- Manage the pilots: go to “Applications / CCd / Pilot / create”
 - Do this management for the pilots 3X600,3X601

Review/Modify: Pilot

```

Node Number (reserved) : 1
Instance (reserved) : 1
Instance (reserved) : 1
Pilot Directory Number : 34600

New Pilot Directory Number : 34600
Directory Name : pilot1
Pilot Connection COS : 0
InterGuide tone Number : 2
On Hold Guide Number : 2
Transfer with priority + False
Redirection Busy Tone On DID + True
Current Pilot Rule Number : -1
Restore Current Rule Data + False

General Forwarding

General Forwarding Activation + False
General Forwarding On Rule + False
General Forwarding Directory No. : -----
  
```

- Manage the waiting queues: go to “Applications / CCd / Queue / create”
 - Example given: X = node number = 4
 - Do this management for the queues 3X700,3X701,3X702
 - 3X700 = Waiting queue type: Normal
 - 3X701 = Waiting queue type: Intelligent overflow (= mutual aid)
 - 3X702 = Waiting queue type: Redirection (= dissuasion)

Create: Queue

```

Node Number (reserved) : 1
Instance (reserved) : 1
Instance (reserved) : 1
Directory Number : 34700

Name : Norm_wq
Type + Normal
Manual Closure + False
  
```

- Manage the processing groups: go to “Applications / CCd / Processing groups / create”
 - Example given: X = node number = 4
 - Do this management for the PG 3X800,3X801,3X802
- PG 3X800: PG type = agent

Create: Processing Group

```

Node Number (reserved) : 1
Instance (reserved) : 1
Instance (reserved) : 1
Directory Number : 34800

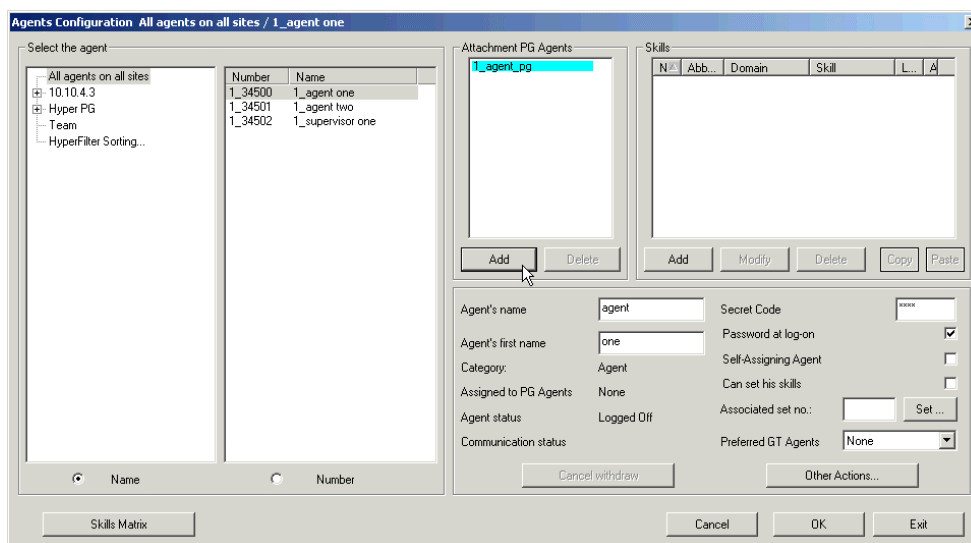
Name : agent_pg
Type + Agent
  
```

- PG 3X801: PG type = forwarding

Review/Modify: Processing Group

Node Number (reserved)	: 1
Instance (reserved)	: 1
Instance (reserved)	: 1
Directory Number	: 34801
Name	: fwd_pg
Type	: Forwarding
Manual Closure	: False
Forwarding Directory No.	: 34810

- PG 3X802: PG type = voice guide
- From the CCs, declare the “attachment PG agent” for each agent or supervisor set
 - For the sets 3X500,3X501, 3X502, the attachment PG agent will be 3X800
 - Go to “Configurations / agents”



The screenshot shows the 'Agents Configuration' window with the title 'All agents on all sites / 1_agent one'. The window is divided into several sections:

- Select the agent:** A tree view on the left shows a hierarchy starting with 'All agents on all sites', followed by '10.10.4.3', 'Hyper PG', 'Team', and 'HyperFilter Sorting...'. A table on the right lists agents: 1_34500 (1_agent one), 1_34501 (1_agent two), and 1_34502 (1_supervisor one).
- Attachment PG Agents:** A list box containing '1_agent_pg' with 'Add' and 'Delete' buttons below it.
- Skills:** A table with columns 'N', 'Abb...', 'Domain', 'Skill', 'L...', and 'A'.
- Agent details:** Fields for 'Agent's name' (agent), 'Agent's first name' (one), 'Category' (Agent), 'Assigned to PG Agents' (None), 'Agent status' (Logged Off), and 'Communication status'. There are also checkboxes for 'Secret Code', 'Password at log-on', 'Self-Assigning Agent', and 'Can set his skills', along with an 'Associated set no.' field and a 'Set...' button.
- Buttons:** 'Cancel withdraw', 'Other Actions...', 'Cancel', 'OK', and 'Exit' are at the bottom.

- From the CCs, declare the waiting queue reachable by the pilot
 - Go to “Configurations / pilots”
 - For the pilot 3X600, add the waiting queues 3X700 and 3X701

Pilot Configuration

Select pilot:
☐ Name ☒ Number
 1_34600 1_pilot1

Change Pilot directory: 34600
 Change Pilot Name: pilot1
 Pause between two calls: 5 sec.
 Wrap Up duration (sec.): 600 sec.
 Language: French

Call Routing
 Possible queues:
 1_34700
 Add
 1_34701
 1_34702
 Delete

Service level target:
 80 % calls
 answered within 10 sec.

Alert Thresholds:
 Max conversation time: 120 sec.
 Min. conversation time: 3 sec.
 Wrap-Up duration: 10 sec.
 Efficiency: 90 %

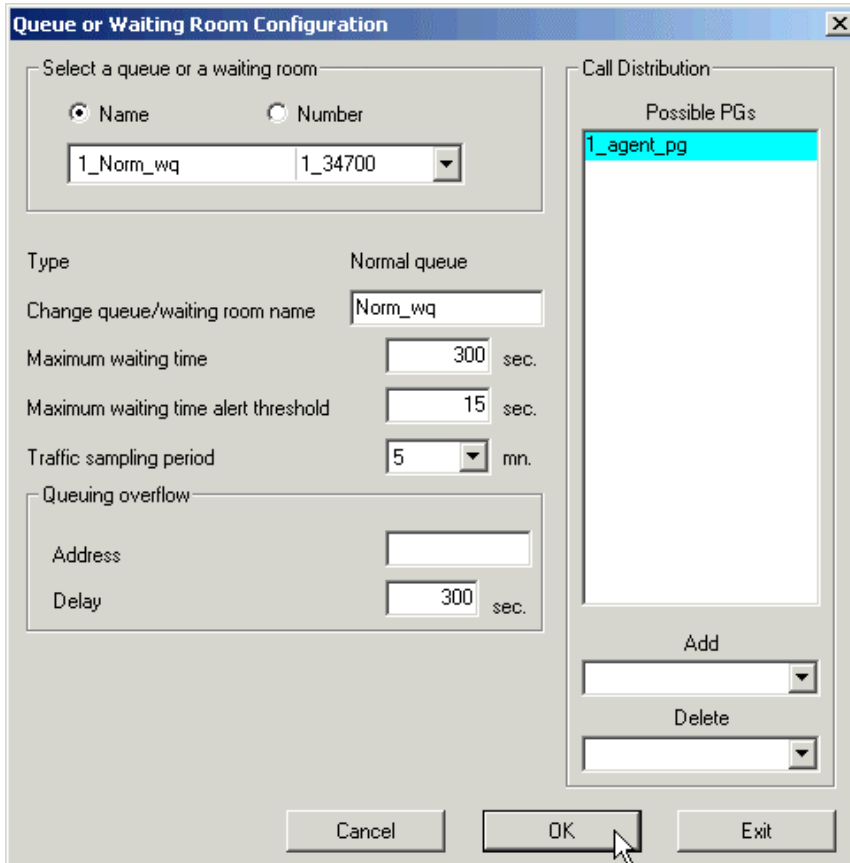
Closure addresses:

Rule	Address	Voice guide #	# diff.	Duration
Standard General forwarding		74		10,0 sec.
Blockage		75		10,0 sec.
Emergency closure		74		10,0 sec.

Cancel OK Exit

For the pilot 3X601, add the waiting queues 3X700 and 3X702

- From the CCs, declare the processing groups reachable by the waiting queue
 - Go to “Configurations / queue and waiting room”
 - For the waiting queue 3X700, add the processing group 3X800



The image shows a screenshot of the "Queue or Waiting Room Configuration" dialog box. It has a title bar with a close button. The dialog is divided into two main sections. The left section, titled "Select a queue or a waiting room", contains two radio buttons: "Name" (selected) and "Number". Below them are two text boxes: "1_Norm_wq" and "1_34700". The right section, titled "Call Distribution", contains a list box labeled "Possible PGs" with "1_agent_pg" selected. Below the list box are "Add" and "Delete" buttons, each with a dropdown menu. At the bottom of the dialog are "Cancel", "OK", and "Exit" buttons. The "OK" button is highlighted with a mouse cursor.

Queue or Waiting Room Configuration

Select a queue or a waiting room

☒ Name ☐ Number

1_Norm_wq 1_34700

Type Normal queue

Change queue/waiting room name Norm_wq

Maximum waiting time 300 sec.

Maximum waiting time alert threshold 15 sec.

Traffic sampling period 5 mn.

Queuing overflow

Address

Delay 300 sec.

Call Distribution

Possible PGs

1_agent_pg

Add

Delete

Cancel OK Exit

- Do the same management for the others waiting queues
 - For the waiting queue 3X701, add the processing group 3X801
 - For the waiting queue 3X702, add the processing group 3X802

2. Manage the routing & distribution rules:

- In normal state, the pilot 3X600 is connected first to the normal waiting queue; this one uses the agent processing group. In case of congestion, the mutual aid waiting queue will be used. This waiting queue is connected to the forward processing group (forward to the analog set 3X010)

From the CCs, go to: “Call flow mngt / call routing “

Call Routing

Pilot: 1_pilot1 Status: Blocked Calendar Inhibited Guide used

Traffic (calls/min): 0

Pilot rule: 1_Rule_0 0 Active

Calendar per Pilot	Normal mode	FWD mode	Additional
Main Direction	For Pilot	Queue	Priority
1_Norm_wq	0	0	300
1_aid_wq	1	0	

Access to the Processing Groups: For Pilot For Queue

Then, go to “call flow mngt / call distribution”

Call Distribution

Queue: 1_Norm_wq Status: BLOCKED

Traffic: 0 calls/min

Processing Group: 1_agent_pg Status: BLOCKED

Traffic: 0 calls/min

Calendar	Resource selection	Call Selection
Direction	PG	Priority
1_agent_pg	0	0

Access to Pilots: For Queue For PG

Do a such management for the pilot 3X601

- In normal state, the pilot 3X601 is connected first to the normal waiting queue; this one uses the agent processing group. In case of congestion, the dissuasion waiting queue will be used. This dissuasion waiting queue is connected to the voice guide processing group (voice guide N°: 710; “All agents are busy, please call back later”)
- Activate, from “mgr”, the distribution rule
 - Go to: “Applications / CCd / Distribution rule”

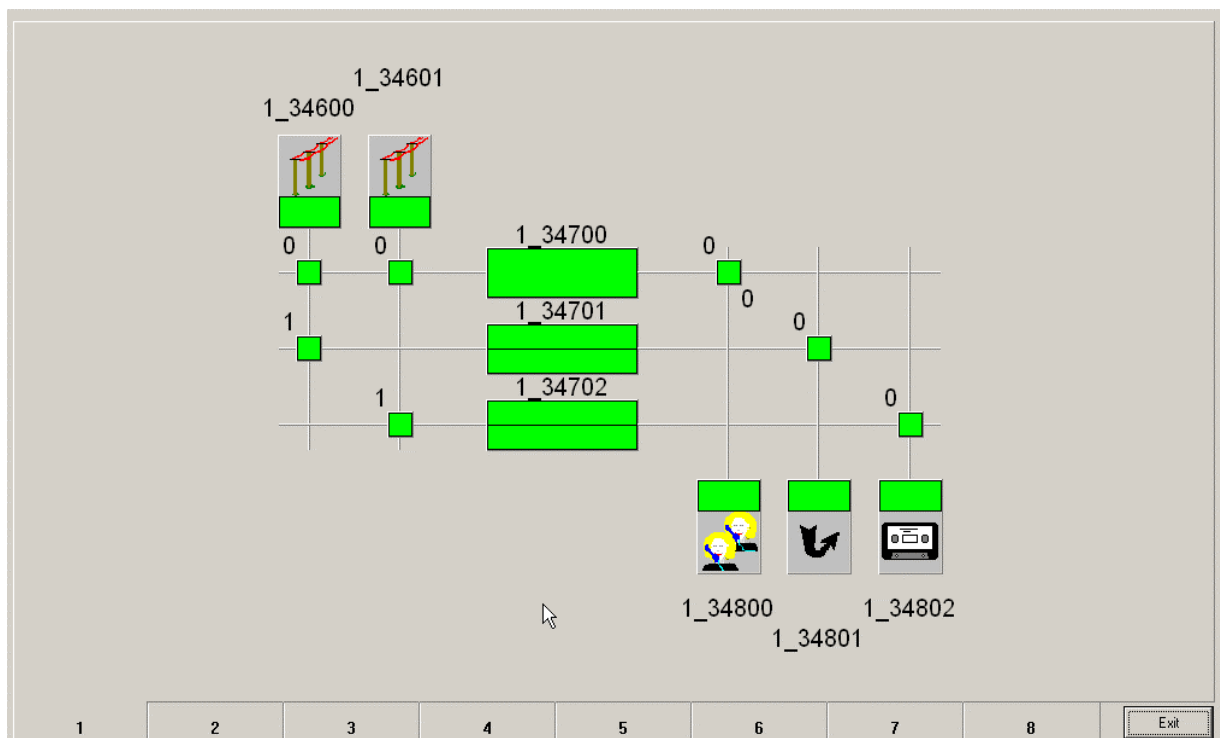
Review/Modify: Distribution Rule

```

Node Number (reserved) : 1
Instance (reserved) : 1
Instance (reserved) : 1
Rule Number : 0

Name : Rule_0
Active Rule : True
    
```

The matrix is the following one



3. Caller / called filtering configuration

- Create a filtered number: 02CC43x333
 - Where CC is the room number
 - X is the node number
- When a customer calls from France, the call is routed to:
 - Pilot 3X600 during the day
 - Agent 3X500 during the night
- When a customer calls from England, the call is routed to:
 - Pilot 3X601 during the day
 - Agent 3X500 during the night
- When a customer calls from another country, the call is routed to the analog set 3X010, whatever the entity status (day, night..)
- Go to: "Translator/ Filtered called Number / create"

Create: Filtered Called Number

```
Node Number (reserved) : 1
Instance (reserved) : 1
Directory Number : 34333

Entity Number : 0
Public Rerouting + False
```

- Go to: "Translator / Filtered called Number / Descend hierarchy"

Create: Teleservice filtering

```
Node Number (reserved) : 1
Instance (reserved) : 1
Directory Number : 34333

Filtering parameters

ISDN Teleservice + Phone
Status + Night

Filtering Index : 0
Overflow Directory number : 34010
```

- Create the filtering index "0" for the night, "1" for the day

```
Create: Teleservice filtering
Node Number (reserved) : 1
Instance (reserved) : 1
Directory Number : 34333
Filtering parameters
ISDN Teleservice + Phone
Status + Day
Filtering Index : 1
Overflow Directory number : 34010
```

- Speed dialing numbers management:
 - Manage the speed dialing area N° 0
- Speed dialing / Spd DL numbers by range / Review/Modify

```
Review/Modify: Spd DL Numbers by Range
Node Number (reserved) : 4
Instance (reserved) : 1
Range Number : 0
Index for 1st speed dial number : 0
Length for speed dialing numbers : 10
Number of Digits : 2
Used in network + Local Node
```

- Manage the speed dialing numbers
 - 0033 for France
 - 0044 for England
- Speed dialing / Spd DL numbers by range / speed dialing number / create

```
Create: Speed Dialing Number
Node Number (reserved) : 1
Instance (reserved) : 1
Range Number : 0
Speed Dialing No. : 0
Call Number : 00033
Directory name : France
Directory First Name : -----
UTF-8 Directory First Name : -----
UTF-8 Directory First Name : -----
Call Restrictions - Barring + False
Overflow Range No. : -1
Auto.Attendant Calling Right : 0
Call Type + Normal
Timed Overflow Range No. : -1
Can be Called/Dialed By Name + YES
Displayed Name : -----
External DISA Dir.No. : -----
```

Note: the first "0" of the call number is a trunk group seizure prefix!!!

```

Create: Speed Dialing Number
Node Number (reserved) : 1
Instance (reserved) : 1
Range Number : 0
Speed Dialing No. : 1

Call Number : 00044
Directory name : England
Directory First Name : -----
UTF-8 Directory Name : -----
UTF-8 Directory First Name : -----
Call Restrictions - Barring + False
Overflow Range No. : -1
Auto.Attendant Calling Right : 0
Call Type + Normal
Timed Overflow Range No. : -1
Can be Called/Dialed By Name + YES
Displayed Name : -----
External DISA Dir.No. : -----
  
```

- Manage the filtering index
- Go to “Speed dialing / Spd Dl numbers by range / speed dialing number / Caller number filtering / create”
 - For France, during the day (filtering index 1), routing to the pilot 3X600

```

Create: Caller Number Filtering
Node Number (reserved) : 1
Instance (reserved) : 1
Range Number : 0
Speed Dialing No. : 0
Filtering index : 1

Routing Number : 34600
  
```

- For France, during the night (filtering index 0), routing to the agent 3X500

```

Create: Caller Number Filtering
Node Number (reserved) : 1
Instance (reserved) : 1
Range Number : 0
Speed Dialing No. : 0
Filtering index : 0

Routing Number : 34500
  
```

Do a such management for the speed dialling N° 0044 (speed dialling N° “1”)

- For England, during the day (filtering index 1), routing to the pilot 3X601

Create: Caller Number Filtering

```
Node Number (reserved) : 1
Instance (reserved) : 1
Range Number : 0
Speed Dialing No. : 1
Filtering index : 1

Routing Number : 34601■
```

- For England, during the night (filtering index 0), routing to the agent 3X500

Create: Caller Number Filtering

```
Node Number (reserved) : 1
Instance (reserved) : 1
Range Number : 0
Speed Dialing No. : 1
Filtering index : 0

Routing Number : 34500■
```

Prior management:

Don't forget to manage the external callback translator

Don't forget to manage the NDI (installation number) in the entity

Don't forget to manage the NPD in the trunk group

4. Test some maintenance commands

“tcalledfilt” command lists all the filtered numbers

<4>pcx> tcalledfilt

Lognum	Direc Number	entity
0	34333	0

“calledfilt <filtered number>” command displays the filtered number management

<4>pcx> calledfilt 34333

Dir Number	:	34333	Lognum	:	0
COMMON'S DATA					
Entity		0	Public rerout		[F]
FILTERING DATA					
teleservice :			Phone		
Night --> Index :	0		Overflow No :	34010	
Day --> Index :	1		Overflow No :	34010	
Renv1 --> Index :	-1		Overflow No :		
Renv2 --> Index :	-1		Overflow No :		

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Handicaps and Distribution Threshold



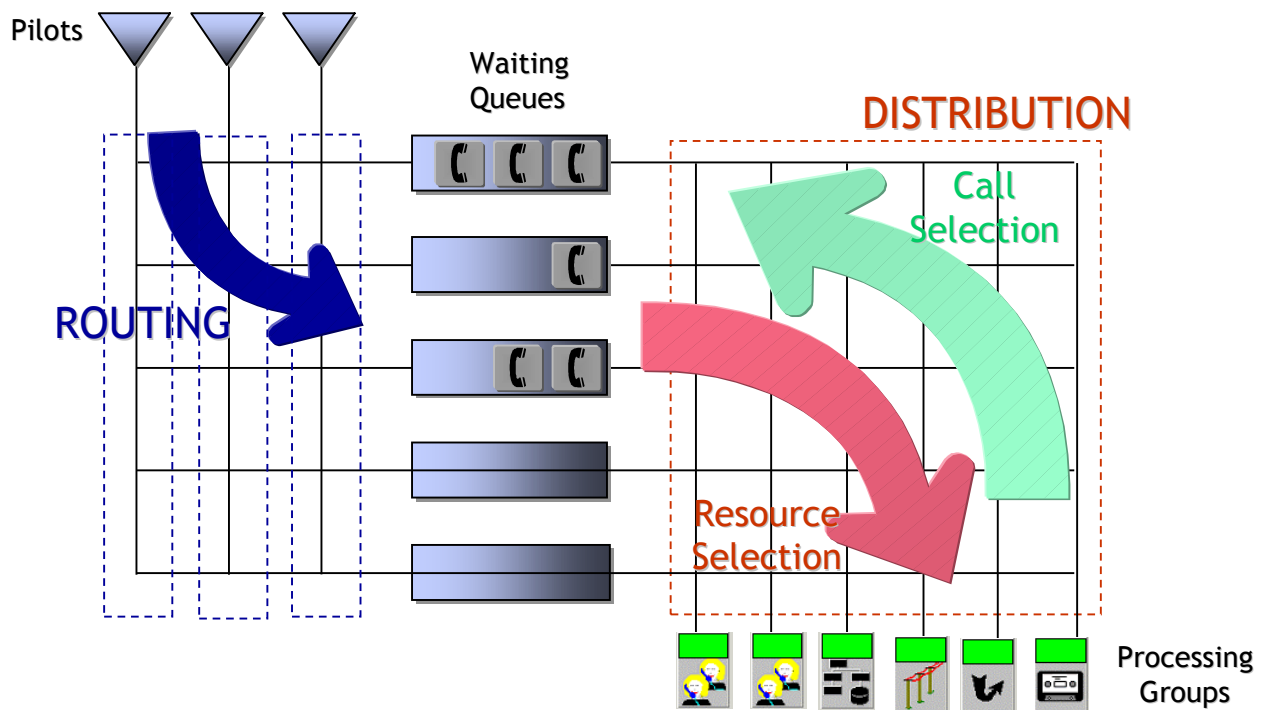
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1

OBJECTIVES

- ◆ To point out the principle of the calculation of foreseeable waiting
- ◆ To know the 3 types of handicaps and the principle of the threshold of distribution

■ Reminder



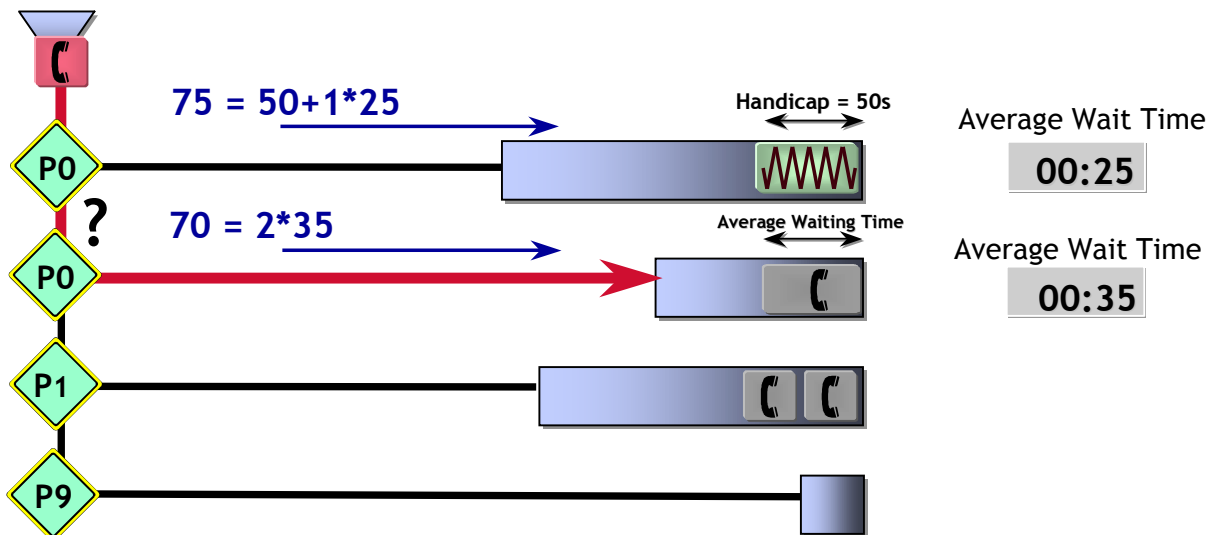
■ 3 different types of handicap

- Handicap on Expected Waiting Time
 - for equal priorities in call routing
- Handicap on LIT (Longest Idle Time)
 - for equal priorities in resource selection
- Handicap on Real Waiting Time
 - for equal priorities in call selection

LIT: Longest Idle Time

■ Handicap on Expected Waiting Time

- When priorities for call routing are equal, the chosen direction is the one with the lowest (EWT + H)
 - “ Expected Wait Time + Handicap ”

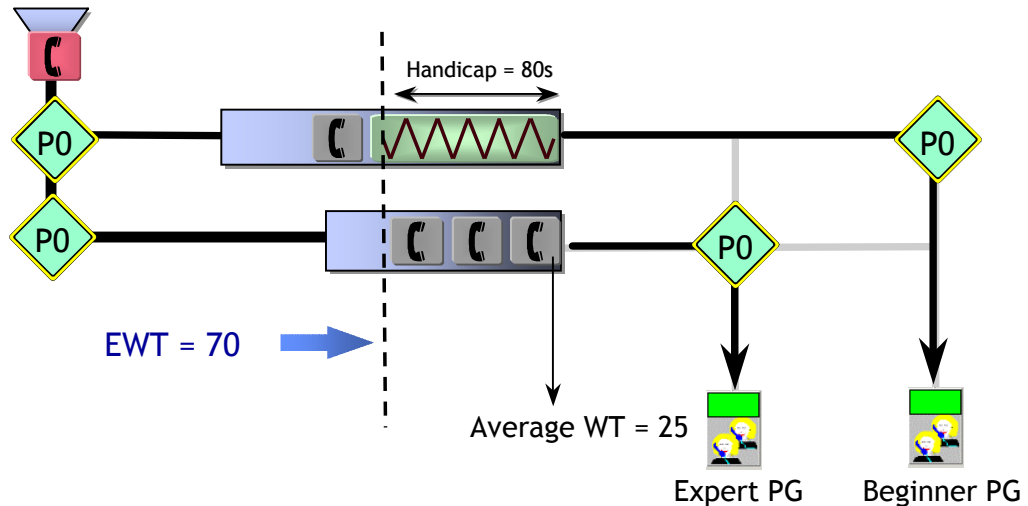


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The average waiting time is calculated by the system for calls at the head of queue over a period (TSP: Traffic Sampling Period)

- Two processing groups for the pilot «Hot line»
- Expert PG: Experienced agents
- Beginner PG: New recruits
- The Beginner PG is processing some calls
 - If the Expected Waiting Time on the expert PG is above a given level (80 seconds)



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The beginner PG can be used to relieve the load on the Expert PG when the PWT becomes long on the Expert PG.

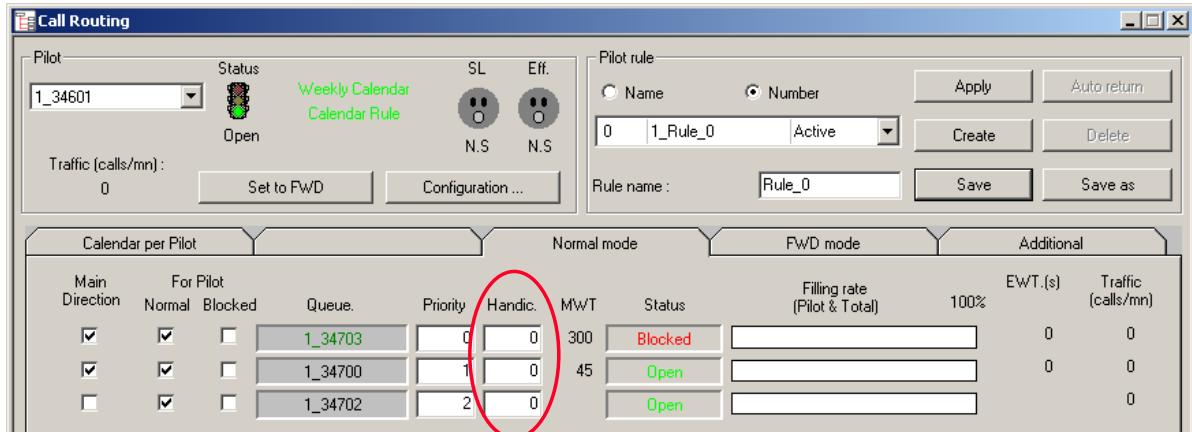
However, we do not want to divert too many calls to the Beginner PG because it will not provide as good a quality of service as the EXPERTS.

So the Handicap should be chosen carefully based on the number of calls that can reasonably be handled by the Beginner PG.

■ Handicap on expected waiting time management

- From the CCs: Call Flow Mgt / Call routing

□ Normal or Fwd mode



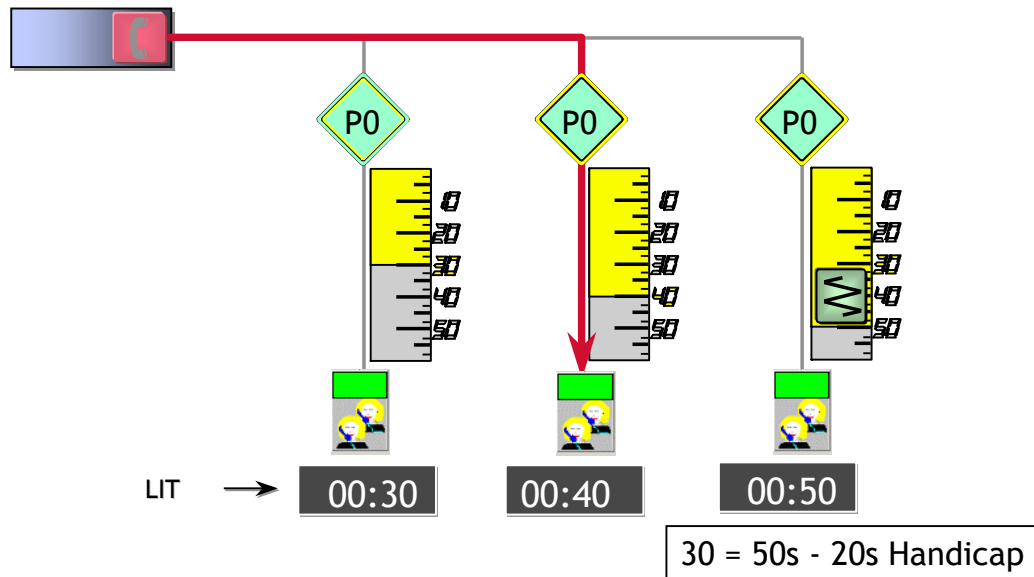
The screenshot shows the 'Call Routing' configuration window. The 'Pilot' dropdown is set to '1_34601'. The 'Status' is 'Open'. The 'SL' and 'Eff.' are both 'N.S.'. The 'Pilot rule' section shows 'Number' selected, '1_Rule_0' as the rule name, and 'Active' as the status. The 'Calendar per Pilot' section is expanded, showing a table with columns: Main Direction, For Pilot (Normal, Blocked), Queue., Priority, Handic., MWT, Status, Filling rate (Pilot & Total), 100%, EWT.(s), and Traffic (calls/mn). The 'Handic.' column is circled in red.

Main Direction	For Pilot	Queue.	Priority	Handic.	MWT	Status	Filling rate (Pilot & Total)	100%	EWT.(s)	Traffic (calls/mn)
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Blocked	1_34703	0	0	300	Blocked			0	0
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Blocked	1_34700	1	0	45	Open			0	0
<input type="checkbox"/>	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Blocked	1_34702	2	0		Open				0

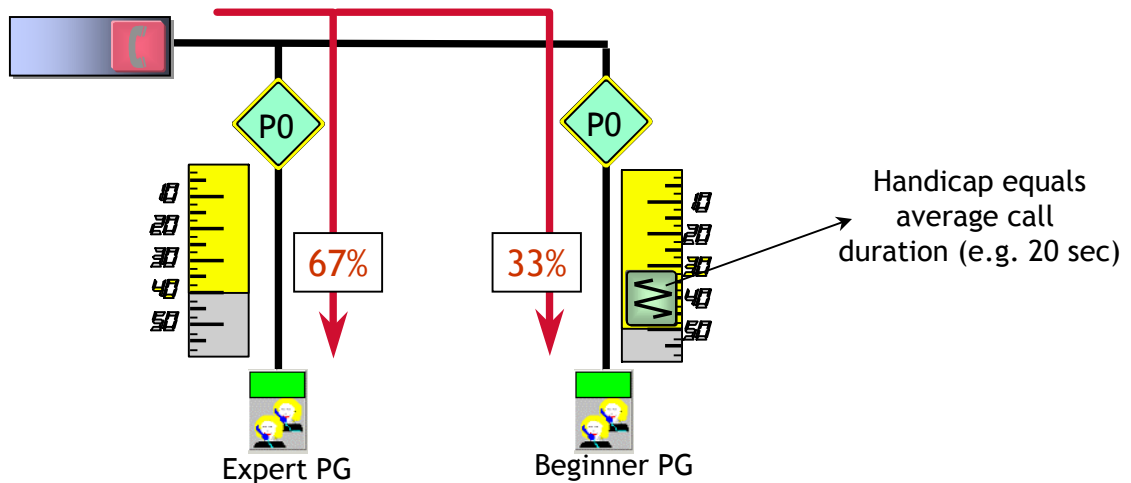
- Enter a duration between 0 and 7200 seconds.

■ Handicap on LIT

- When resource selection priorities are equal, the chosen direction is the one with the highest (LIT - H)
 - "Longest Idle Time - Handicap"



- Let's imagine 2PGs
 - Expert PG
 - Beginner PG
- For steady and low call flows, for a 33% / 66% distribution
 - Handicap on LIT = Average talking time



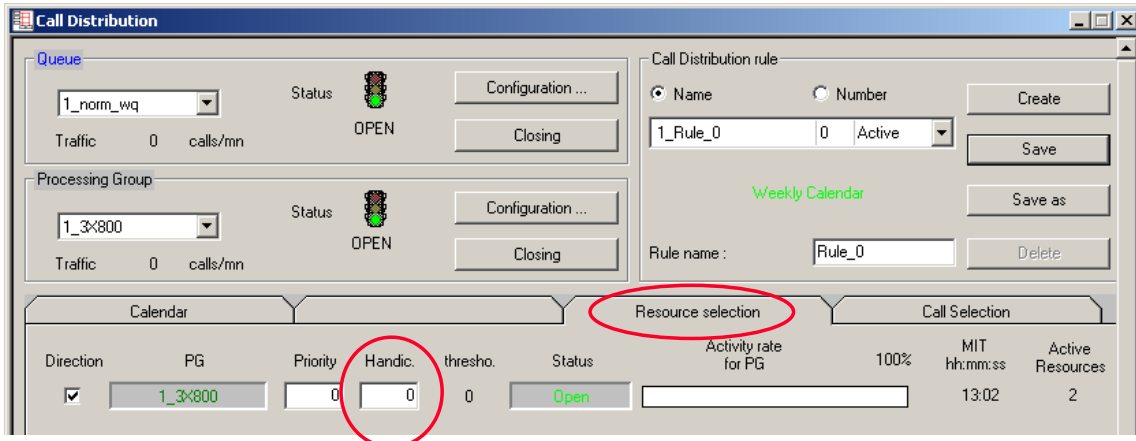
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For steady and low call flows (there is no need for call selection!)
Average call time = ringing + code = wrap up = pause.

■ Handicap on LIT management

- From the CCs: Call Flow Mgt / Call distribution
 - “Resource selection” tab



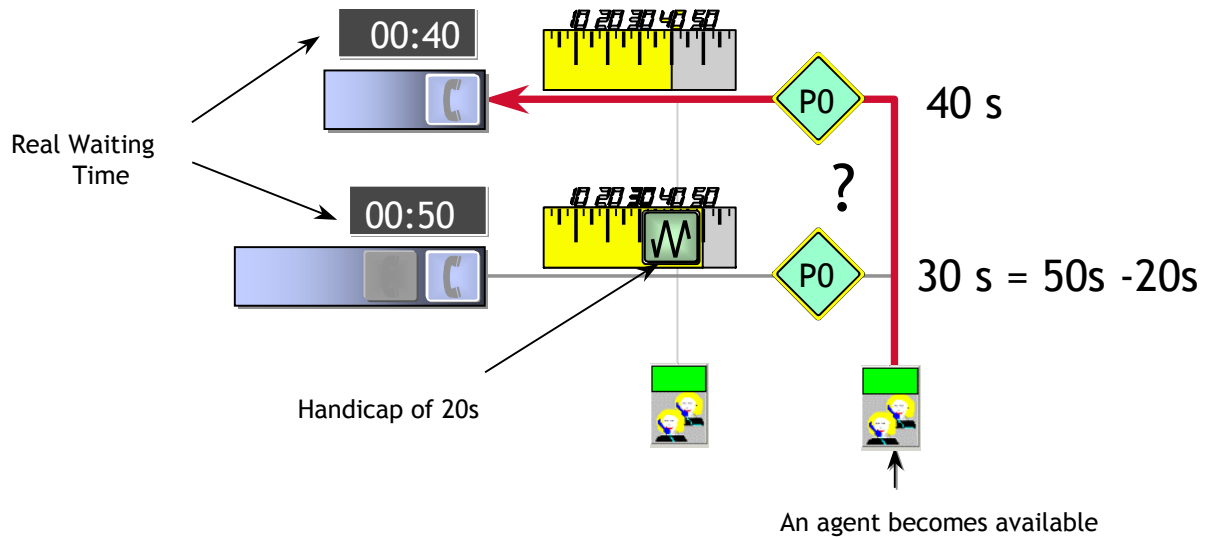
The screenshot shows the 'Call Distribution' configuration window. The 'Resource selection' tab is highlighted with a red circle. Below the tabs, there is a table with the following data:

Direction	PG	Priority	Handic.	thresho.	Status	Activity rate for PG	MIT hh:mm:ss	Active Resources
<input checked="" type="checkbox"/>	1_3x800	0	0	0	Open		13:02	2

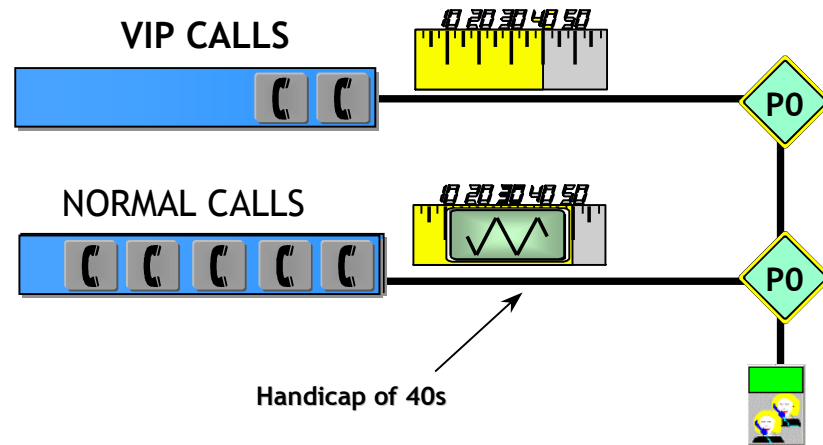
- Enter a duration between 0 and 86400 seconds

■ Handicap on Real waiting Time

- When call selection priorities are equal, the chosen direction is the one with the highest (RWT -H)
 - “Real Waiting Time - Handicap”



- We want the Expert PG to handle:
 - Most of the VIP calls
 - Some “customer” calls on which the actual waiting time is too long
- A normal call is not taken unless
 - Real Waiting Time exceeds the VIP waiting time by at least 40 seconds



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Different from the “handling VIP calls before normal calls” system:

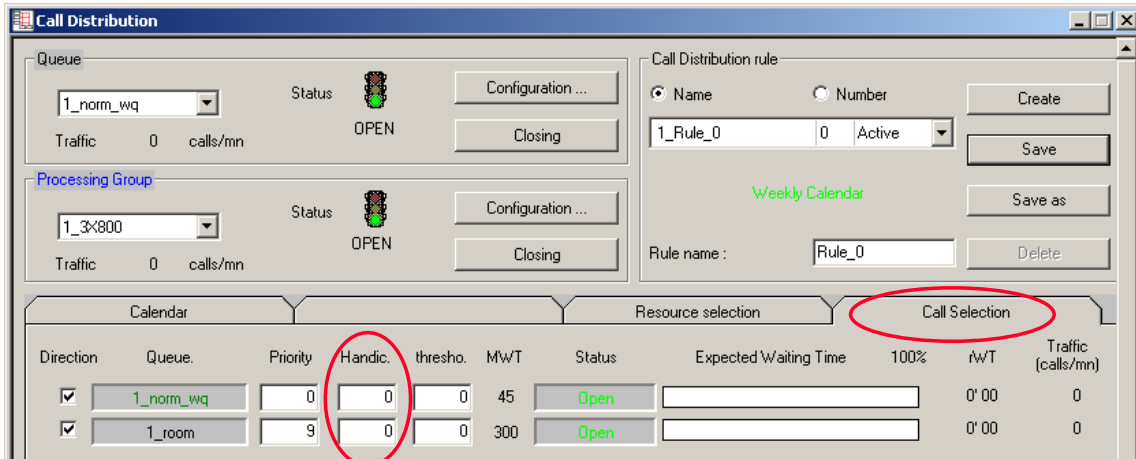
In this case, only call selection priorities are used (priorities 0 for VIP and 1 for the others).

This solution is binary because it first only considers VIP calls and only when the VIP queue is empty will the non-VIP customer queue be dealt with. This does not exactly address the problem.

■ Handicap on real waiting time management

- From the CCs: Call Flow Mgt / Call distribution

□ “Call selection” tab



Direction	Queue.	Priority	Handic.	thresho.	MWT	Status	Expected Waiting Time	100%	rWT	Traffic (calls/mn)
<input checked="" type="checkbox"/>	1_norm_wq	0	0	0	45	Open			0' 00	0
<input checked="" type="checkbox"/>	1_room	9	0	0	300	Open			0' 00	0

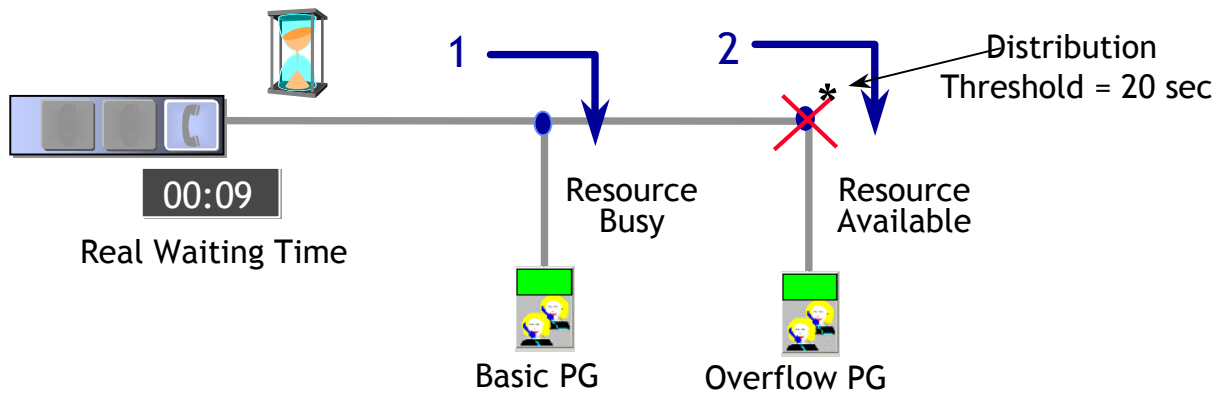
- Enter a duration between 0 and 7200 seconds

■ Distribution Threshold

- This item represents a duration threshold expressed in seconds (from 0 to 3276 sec)
- This is the minimum real waiting time
- Any call waiting longer than this duration can be distributed by this direction.
- This parameter is the most significant for the call selection
- Distribution threshold is used for:
 - Resource selection
 - Call selection

■ Distribution threshold - Resource selection

- If the basic group is busy, call is distributed to the overflow PG only if Real Waiting Time exceeds Distribution Threshold

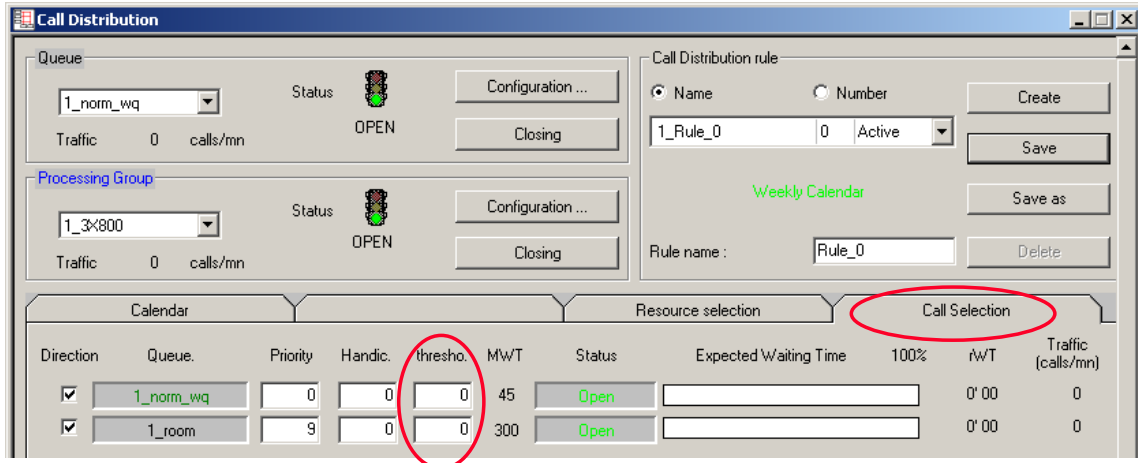


The call can be distributed to the overflow group only if its actual waiting time is longer than the limit.
If a resource becomes available in the basic group within the 20 seconds (limit), the call is distributed to basic group.

■ Distribution threshold - Resource selection management

● From the CCs: Call Flow Mgt / Call distribution

□ “Call selection” tab

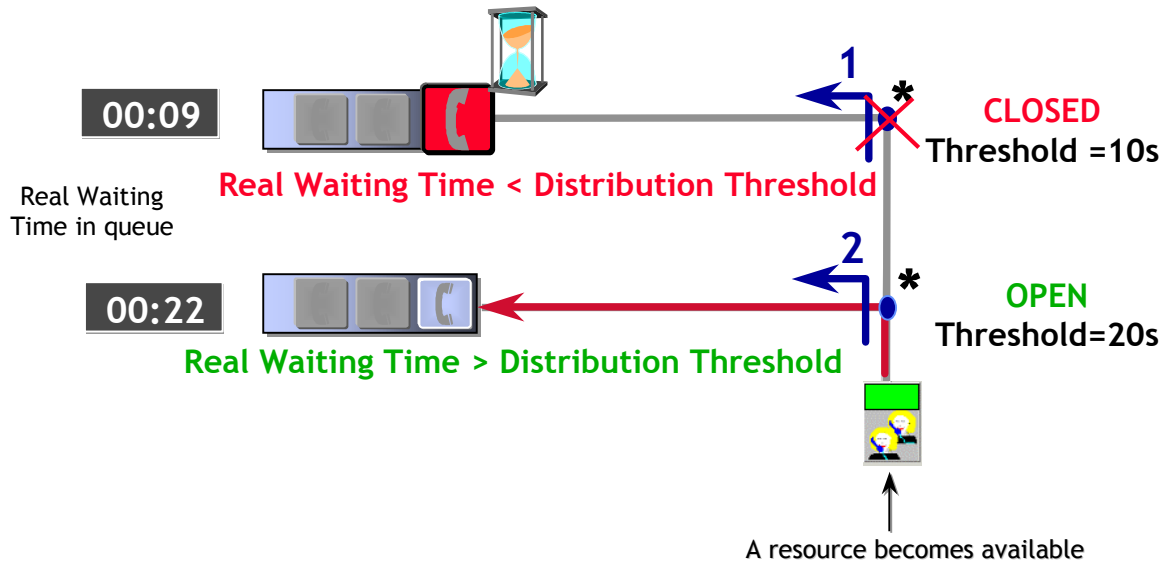


Direction	Queue.	Priority	Handic.	thresho.	MWT	Status	Expected Waiting Time	100%	iWT	Traffic (calls/mn)
✓	1_norm_wq	0	0	0	45	Open			0' 00	0
✓	1_room	9	0	0	300	Open			0' 00	0

□ In the “Resource selection” tab, we can only visualize the distribution threshold value (we cannot manage its value)

■ Distribution threshold - Call selection

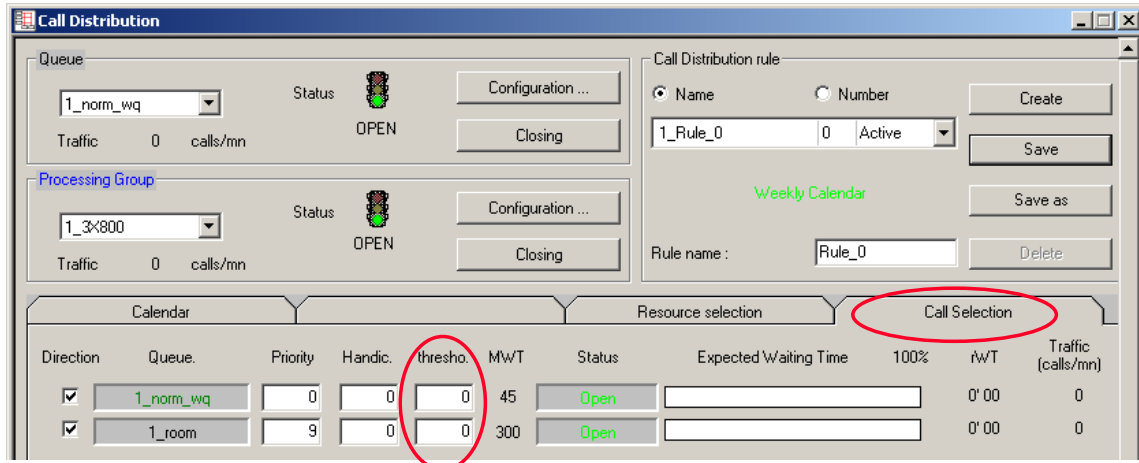
- All calls that have waited more than this Threshold can be selected by this Processing Group



■ Distribution threshold - Call selection management

- From the CCs: Call Flow Mgt / Call distribution

□ “Call selection” tab



Direction	Queue	Priority	Handic.	thresho.	MWT	Status	Expected Waiting Time	100%	rWT	Traffic (calls/mn)
<input checked="" type="checkbox"/>	1_norm_wq	0	0	0	45	Open			0' 00	0
<input checked="" type="checkbox"/>	1_room	9	0	0	300	Open			0' 00	0

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WorkForce Package Application



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1

OBJECTIVES

- ◆ To understand the principle of the Workforce Package Link
- ◆ To know the possibilities of such applications
- ◆ To manage the Work Force package Link

■ Generalities

- The Work Force Package(WFP) server build periodically a statistic report and export it toward a Work Force Application.

- The goal is to:
 - Forecast future call volumes
 - Determine the number of agents needed throughout the day
 - Create flexible and efficient agent work schedules
 - Automatically assign agents to schedules
 - Respond immediately to changes in call patterns and agent availability
 - Prepare and analyze « what if » scenarios for budgeting and planning

The WFP Server need to have OPS lock:

94 - WorkForceLink

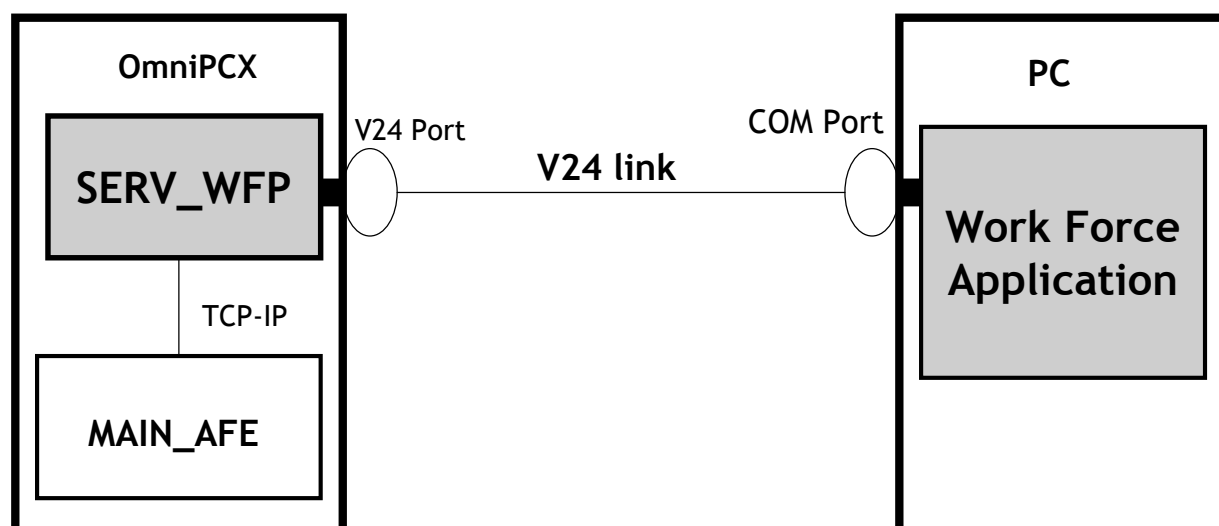
The WFP Server is always running on a V24 port.

The process /usr2/afe/serv_wfp is automatically run.

The WFP Server is connected to main_afe so it must be taken in account in the count of terminals allowed

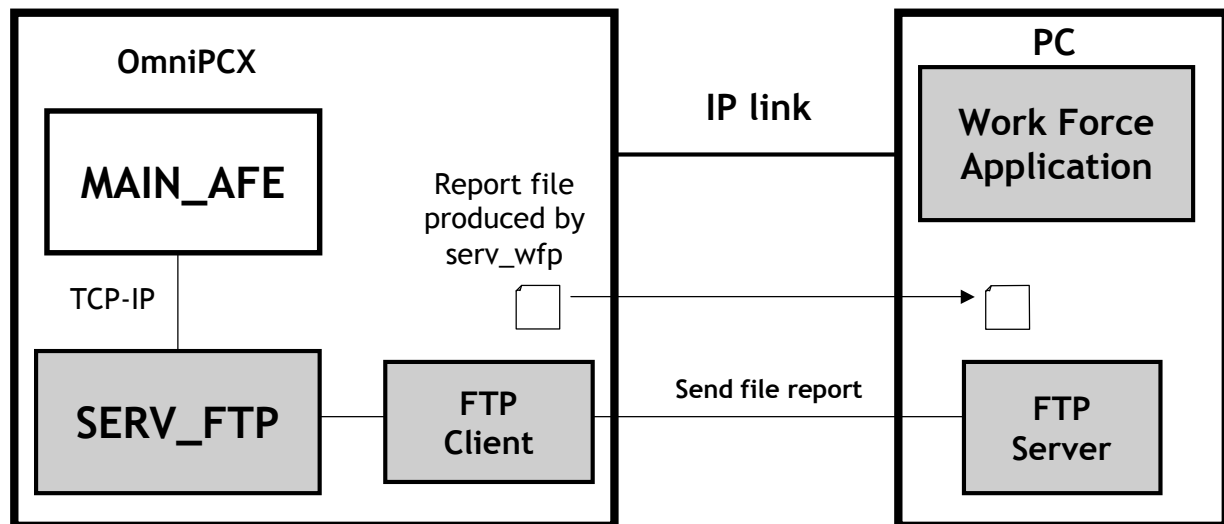
■ Export mode through V24 link

- Work Force Application receives periodically data from CCdistribution OmniPCX through a V24 link.



■ Exports reports by FTP

- Report files are generated periodically and sent via FTP toward the Work Force Application.



An FTP server running on the PC is needed to get the report files (available as a shareware).

- The Work Force Applications supported are the following:
 - TCS System
 - IEX Total View
 - Q-Max Call Center Management System
 - Blue - Pumpkin Prime Time

- There are 2 main report formats:
 - The TCS format and the IEX format.
 - Q-Max and Blue-Pumpkin are formats inherited from the TCS format (same statistics)

Contents of the TCS report format:

pilot/team:

Call number of the pilots followed by call number of each team serving the named pilot.

The call number is truncated to the last 4 digits so that the item pilot/team doesn't exceed 10 characters.

total calls offered:

Number of calls received on a pilot excluding those abandoned under a level-time, but including dissuaded and rerouted.

average speed answer:

Average time before a call is distribute on an agent

average handle time:

Average call handle time in seconds

percent service efficiency:

Percent of nb_calls_served/nb_calls_offered

average pos staffed:

Average number of agents in full time equivalent, serving the pilot in the named team, calculated with the formula:

$$aps = nb_agents_in_team * (pilot_call_time / all_pilots_call_time)$$

nb_agents_in_team: average number of agents, in full time equivalent, assigned in the team, not withdrawn.

pilot_call_time: total time the agents of the team handled calls received on the pilot.

all_pilots_call_time: total time the agents of the team handled calls received on any pilot.

■ Installation and starting of WFP Server

● Installation

- Management of the V24 port:
- In mgr:
 - System / V 24 port / Review/modify
 - ♦ V24 application: CCD Work Force Package
 - ♦ Parameters: -period1 -v24 -aht1 (for example)

● Programmed arguments (parameter field in the port management)

- General parameters
 - -periodLevel (from 1 to 3); 2 by default
 - ♦ Define the report period by 15mn.
 - ♦ A level equal to 2 indicate to the WFP Server to generate a report every 30mn
 - -save
 - ♦ Use for the test, the generated report is save in the file servwfp.rep on the usr4/afe

Contents of the IEX report format:

Call group report:

Pilot:
Extension of the Pilot

Answer :
Number of calls served

Aband:
Number of calls abandoned

Ans Gos:
Number of calls served under the QS response Threshold determined for the pilot.
This threshold is manage in the /USR3/afe/parameters.cfg

Aban Gos:
Numbers of calls abandoned under a determined level-time

Delay:
Number of calls served with waiting

Delay time:
Total of waiting time of the calls served (sec)

Talk time:
Total of talking time of the calls served (sec)

Agent profile report:

Login Id:
Extension of the Agent

days ign in Time:
Time of the Agent 'login

Sign out time
Time of the agent logout

Agent Detail Report:

Pilot:
Extension of the Pilot

Login ID:
Extension of the Agent

In calls:
Number of ACD calls served

In sec:
Total of talking time of ACD calls served(sec)

Intl Calls:
Number of private calls

Intl Sec:
Total of talking time of private calls served(sec)

Ready Sec:
Total of time in sec the team was available to Receive an ACD communication

Work sec:
Wrap-up time + transaction time +holding time

Busy sec:
wrap-up time on idle state + dialing time

Out calls:
Appendix: Number of outgoing ACD calls made by the Means that login/logout agents of the team overrides 2

Out sec:
Total of talking time of outgoing ACD calls

Login Sec:
Total duration the agents were assigned to the team and not in withdraw

■ General parameters (continuation)

□ -v:

- Run the WFP Server in verbose mode

□ -neol:

- Each line of the report exported on a V24 Link is ended by the ' \0 ' character. This modifier deletes this character

● Example:

□ In mgr: system / v24 port / consult-modify

- parameters: -period1 -v24 -aht0 -asa1 -tco0
 - ◆ -period1: Transfer make every 15 min
 - ◆ -v24: data will be sent by V24 link
 - ◆ -aht0: To define the treatment average of call (0: ringing+conversation+wrap up+transaction+pause)
 - ◆ -asa1: To define the average waiting time of a call before distribution toward an agent (0>waiting time in queue, 1> waiting time in queue + ringing time in the PG)
 - ◆ -tco0: To define the total calls offered (0> 5s, 2>15s, 3> 30s , 4>60s , -1 take in account all the abandoned calls)

■ Work Force Application

- These parameters indicate which report format must be generated
- The default is the TCS Format
- In addition, some others modifiers are set according to the report format chosen

- -qmax:
 - Generate reports for Q-MAX.
 - Additional modifiers:
 - ◆ period1
 - ◆ neol

- -iex:
 - Generate reports for IEX.
 - Additional modifiers:
 - ◆ tco2

- -blue:
 - Generate reports for Blue-Pumpkins

■ Export Mode

- -v24:
 - Export report on the V24 link.
 - The modifier -noxoff can be specified to inhibit the Xon/Xoff.
- -ftp @hostname @username @passwd @directory
 - Export report via FTP toward the host hostname for the username account, using the passwd password.
 - The report files are copied in the directory path.
 - The report file name is MMDDYY.hhmm

2 solutions exist for hostname:

Use a name:

-ftp@serverftp@toto@tutu@.

serverftp: hostname managed in the OmniPCX according to FTP server IP address
toto: username create in TFP server
tutu: password associated to toto username creation
.: To work directly under associated directory to toto username in FTP server
(in place of dot (.) a directory name can be used (eg: save) but it must be created in the associated directory to username (eg: c:\temp))

Use IP address:

-ftp@155.132.1.20@toto@tutu@.

155.132.1.20: FTP server IP address
toto: username create in TFP server
tutu: password associated to toto username creation
.: To work directly under associated directory to toto username in FTP server
(in place of dot (.) a directory name can be used (eg: save) but it must be created in the associated directory to username (eg: c:\temp))

■ Statistics modifiers (used in the parameters of the port):

- -ahtLevel (level 0,1 and 2). 0 by default.
 - Use to define the average call handle time.
 - 0: ringing + talking + wrap-up + transaction + pause
 - 1: talking + wrap-up + transaction + pause
 - 2: talking + wrap-up + transaction
- -asalevel (level 0 and 1). 0 by default.
 - Use to define the average time before a call is distribute on an agent
 - 0: waiting_time
 - 1: waiting_time + ringing time
- -tcoLevel (level -1,0,1,2,3,4). 0 by default.
 - Use to define the total calls offered. The level is one of the 5 levels of the levels-table given in the field<histo-pilot> of the parameters.cfg file and define the abandoned calls.
 - -1 means to take into account all the abandoned calls.

HANDS-ON EXERCISES

OBJECTIVE

- To learn how to manage a WFP link to get statistics on an external application

MANAGEMENT

1. Manage the V24 port of the Alcatel OmniPCX to get some statistics through the WFP Link
We would like to display these statistics on the D V24 port (in case of crystal hardware), every 15 minutes
Note: if you use common hardware, a MOXA box will be required
We also would like to save these statistics in the “servwfp.rep” file
Where is located this file?
2. Check that the process “serv_wfp” is started on the PCX by using the “ps” command
3. Connect the Alcatel-Lucent OmniPCX to a terminal and check if you get some information

HANDS-ON EXERCISES SOLUTIONS

OBJECTIVE

- To learn how to manage a WFP link to get statistics on an external application

MANAGEMENT

1. Manage the V24 port of the Alcatel OmniPCX to get some statistics through the WFP link
We would like to display these statistics on the D V24 port (in case of crystal hardware), every 15 minutes

Note: if you use common hardware, a MOXA box will be required (Please check the MOXA box management in the OXE training).

We also would like to save these statistics in the “servwfp.rep” file

Where is located this file? On mgr or 47xx , go to “System / v24 port / Review/modify »

```
Review/Modify: V24 Port
Node Number (reserved) : 4
Instance (reserved) : 1
Port + /dev/ttyS3 (3)
U24 No. : 3
RTS/CTS protocol + True
Dynamic + False
TA Directory No. : -----
Speed + 9600 b/s
Parity + None
Data bits + 8 bits
Stop Bit + 1 Bit
Terminal Type + TTY
U24 Application + CCD Work force package
Parameters : -period1 -save -V24
Port Dir.No (Static) : -----
```

Parameters: -period1 -save -V24

-“period”x: defines the automatic transfer periodicity

x=1:15 min

x=2: 30min

x=3: 1 hour

-save: means that the statistic report will be saved in usr4/afe, in the “servwfp.rep” file

```
(4)pcx> pwd
/usr4/afe
(4)pcx> ll *.rep
-rw-rw-rw- 1 mtcl tel 2805 May 23 18:30 servwfp.rep
```

-V24: means that data will be sent through V24

2. Check that the process “serv_wfp” is started on the PCX by using the “ps” command

```
(4)pcx>
(4)pcx> ps -edf | grep wfp
mtcl 3800 1127 0 18:07 ? 00:00:00 serv_wfp
mtcl 3801 3800 0 18:07 ? 00:00:00 serv_wfp
mtcl 3802 3800 0 18:07 ? 00:00:00 serv_wfp
mtcl 3822 21245 0 18:08 pts/0 00:00:00 grep wfp
(4)pcx>
```

3. Connect the Alcatel OmniPCX to a terminal and check if you get some information

TCS Report

DATE: 23/05/05
TIME: 17:45-18:00

pilot/team	total calls offered	average speed of ans	average handle time	percent service efficiency	average pos staffed	total calls served
4600/4800	0	0.00	0.00	0.00	1.00	0
4601/4800	0	0.00	0.00	0.00	1.00	0

\$END OF TCS

Calls Offered Report

DATE: 23/05/05
TIME: 18:00-18:15

pilot	total calls offered	total calls served	total calls abandoned	average speed of answer
4600	4	2	2	2.00
4601	3	3	0	0.00

\$END OF TCS

TCS Report

DATE: 23/05/05
TIME: 18:00-18:15

pilot/team	total calls offered	average speed of ans	average handle time	percent service efficiency	average pos staffed	total calls served
4600/4800	2	2.00	13.00	100.00	0.69	2
4601/4800	3	0.00	16.33	100.00	1.30	3

\$END OF TCS

Remind: This application is available is you get the OPS lock:
94: WorkForceLink

Alcatel-Lucent OmniTouch Contact Center Standard Edition



Hard Drive Architecture



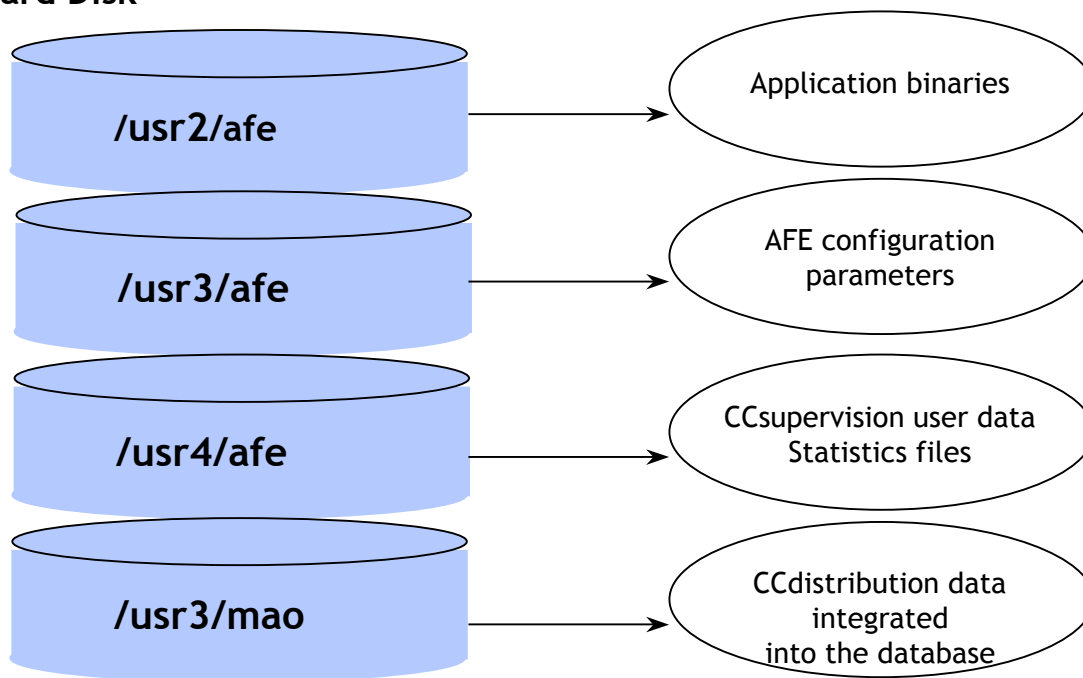
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1

OBJECTIVES

- ◆ To be able to make a trace
- ◆ To check the presence of the processes
- ◆ To name CCdistribution processes in the OmniPCX
- ◆ To know the various repertories of the CCdistribution
- ◆ To know the types of files of the CCdistribution
- ◆ To know the files backed up in the database

Hard Disk



■ Binaries

- /usr2/afe
 - INIT_AFE
 - ◆ AFE initialization
 - MAIN_AFE
 - ◆ AFE management
 - SERV_CCS
 - ◆ server for CCsupervision
 - ACDV2AFIBAR
 - ◆ barometer management
 - CSTAMONO
 - ◆ sending real time information to AFE

■ CCdistribution database

- /usr3/mao
 - integrated into the database
 - TAB_*.dat: objets CCd
 - ◆ e.g.: TAB_AGENTM for agent data

Database:

- TAB_AGENT: agent, _PGAG (agent PG), _PGFO (forwarding type PG), _PGRE (rerouting PG), _PGGU (guide PG), _PIL (pilots), _PR_DI (routing rule direction), _PR_GU (routing rule guide), _RG (queue), SR_DI (dist. rule direction), SR_ST (dist. rule status)

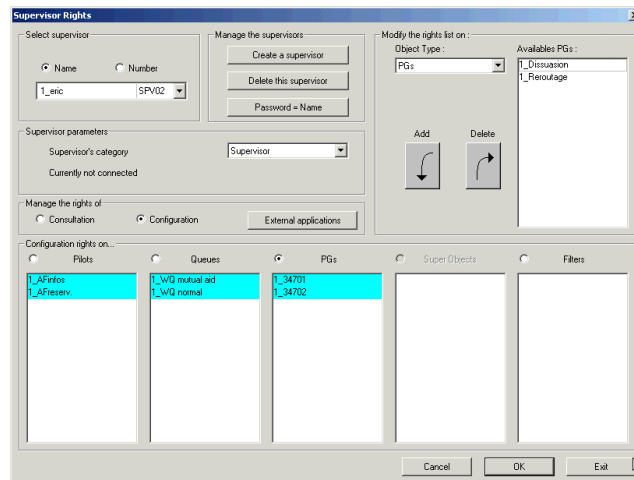
■ Statistics

● /usr4/afe

- Files used by the CCsupervision
 - dy<date>.sta, hr<date>.sta, ev<date>.sta
- Files that can be used by an external application (CCTA...)
 - tc<date>.Z
- Temporary files for the current day
 - te<date>.sta, tr<date>.sta, tc<date>.sta, obj<date>.sta...
- Temporary files restored from a host machine
 - ***.tmp
- Log file
 - ev<date>.log
- Catalogue file
 - catalog.cfg

■ CCsupervision user data

- /usr4/afe
 - Configuration and supervision rights
 - by object / for each user
 - Configuration is done through the CCs
 - Configuration / supervisor rights



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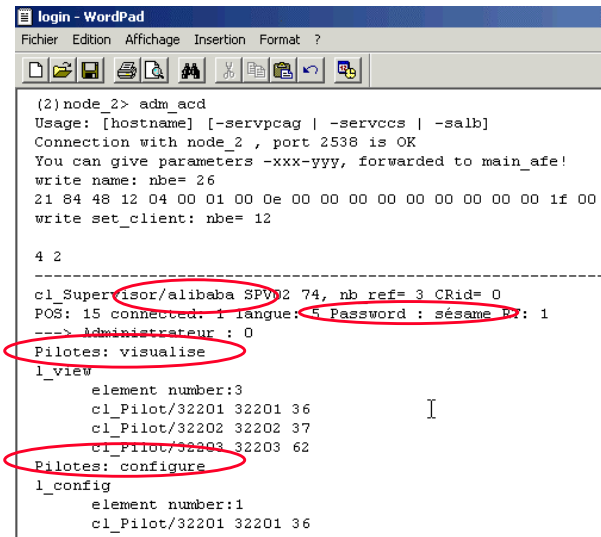
5

the CCsupervision user data is saved when there is a MAO data backup (in swinst)*

■ CCsupervision user data

- CCs administrators and supervisors login/password can be displayed by using the « adm_acd » command

adm_acd and option 4 2



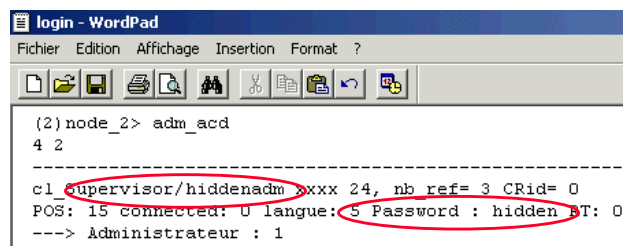
```
(2)node_2> adm_acd
Usage: [hostname] [-servpcag | -servccs | -salb]
Connection with node_2 , port 2538 is OK
You can give parameters -xxx-yyy, forwarded to main_afe!
write name: nbe= 26
21 84 48 12 04 00 01 00 0e 00 00 00 00 00 00 00 00 00 1f 00
write set_client: nbe= 12

4 2
-----
cl_Super isor/alibaba SPV02 74, nb_ref= 3 CRid= 0
POS: 15 connected. 1 langue: 5 Password : sésame P: 1
--> Administrateur : 0
Pilotes: visualise
l_view
  element number:3
  cl_Pilot/32201 32201 36
  cl_Pilot/32202 32202 37
  cl_Pilot/32203 32203 62
Pilotes: configure
l_config
  element number:1
  cl_Pilot/32201 32201 36
```

■ CCsupervision user data

- « hiddenadm » account

- ☐ Password: hidden
- ☐ This account allows to have a connection to the CCs, even if the other accounts (administrator...) have been deleted
- ☐ By using this account, it's possible to configure the supervisor rights, and so, supervisors/administrators can be created



```
login - WordPad
Fichier  Edition  Affichage  Insertion  Format  ?

(2)node_2> adm_acd
4 2
-----
cl_supervisor/hiddenadm>xxx 24, nb_ref= 3 CRid= 0
POS: 15 connected: 0 langue: 5 Password : hidden ST: 0
---> Administrateur : 1
```

■ Run the command: adm_acd

- Use the option 11 in order to visualize the terminals connected to the AFE server

```
(1)xa00004> adm_acd
```

11

```
Terminal [0]
      Name      : *SERV_CCS*
      Type       : SCCS
      Inet add   : 010.010.004.011
      Sock fd    : 15
      State      : 4
      Last ping  : 10
      Nb Packets : 0
```

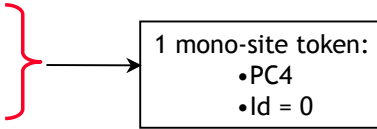
```
Terminal [2]
      Name      : pc4
      Type       : CCS Mono
      Inet add   : 010.010.004.095
      Sock fd    : 17
      State      : 4
      Last ping  : 24
      Nb Packets : 0
```

2 direct connections to AFE:
•CCs server
•PC4 (CCs client)

■ Run the command: adm_acd

- Use the option 11 to display also the token (type, Id) used by the connected terminals

```
(1)xa00004> adm_acd
11
Tokens state:
  ccs_multi:      90      ccs_mono:90
  ccs_light:      90
  MonoCCS Token   (0):pc4 (10.10.4.95)
```



1 mono-site token:
•PC4
•Id = 0

- The option 56 is also used to display the token (type, Id) used by the connected terminals

■ Run the command: adm_acd

- Use the option 57 + “token Id” to release a token

```
(1)xa00004> adm_acd
```

```
57 0
```

```
Press returnwrite: lgw= 18, nbe= 18
```

```
17h02:38 terminal disconnected: 2 pc4
```

```
17h02:38 AgentMAO: remove client 2
```

```
17h02:38 RealTime: remove client 2
```

```
17h02:38 RealTime: remove client evt_tickets 2
```

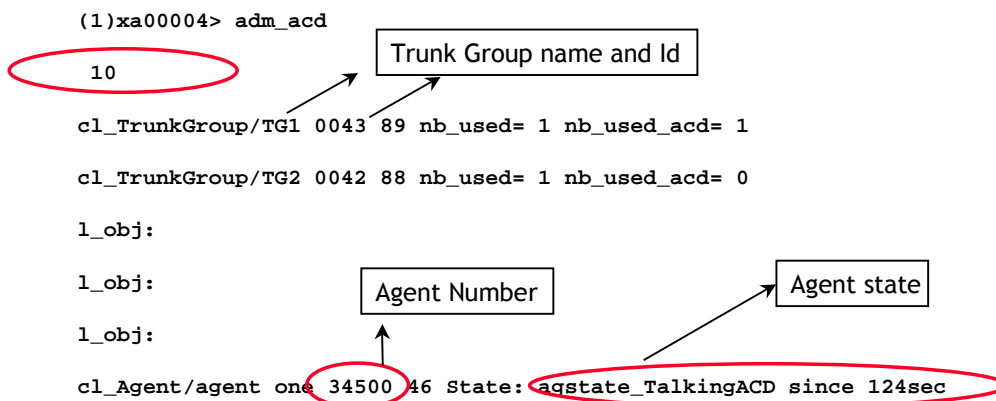
```
17h02:38 Deconnection d'un client: 2
```

PC4 (token Id = 0)
is disconnected

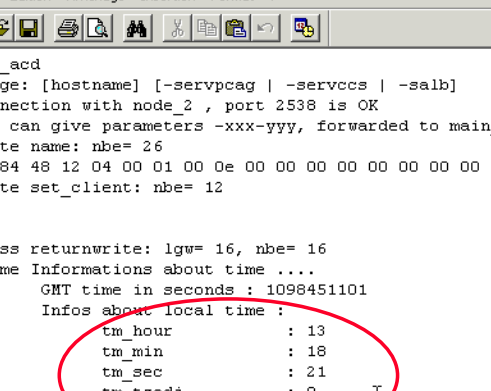
■ Run the command: adm_acd

- Use the option 10 in order to visualize the objects currently used (not in idle state)

```
(1)xa00004> adm_acd
10
Trunk Group name and Id
c1_TrunkGroup/TG1 0043 89 nb_used= 1 nb_used_acd= 1
c1_TrunkGroup/TG2 0042 88 nb_used= 1 nb_used_acd= 0
l_obj:
l_obj:
l_obj:
Agent Number
Agent state
c1_Agent/agent one 34500 46 State: agstate_TalkingACD since 124sec
```



- Use the option 55 in order to visualize the date, the time and the time zone



adm_acd - WordPad

Fichier Edition Affichage Insertion Format ?

adm_acd

Usage: [hostname] [-servpcap] [-servccs] [-salb]

Connection with node_2 , port 2538 is OK

You can give parameters -xxx-yyy, forwarded to main_afe!

write name: nbe= 26

21 84 48 12 04 00 01 00 0e 00 00 00 00 00 00 00 00 00 00 00 1f 0

write set_client: nbe= 12

55

Press returnwrite: lgw= 16, nbe= 16

Some Informations about time

GMT time in seconds : 1098451101

Infos about local time :

tm_hour : 13

tm_min : 18

tm_sec : 21

tm_tzadj : 0

name of timezone : GMT

local date is : Fri Oct 22 13:18:21 2004

Connection to the Alcatel Front End (AFE) process

- Run the command: adm_acd
 - Use the option 200 in order to run a trace

```
(1)xa00004> adm_acd
Connection with xa00004 , port 2538 is OK
You can give parameters -xxx-yyy, forwarded to main_afe!
write name: nbe= 24
21 84 48 12 04 00 01 00 0c 00 00 00 00 00 00 00 00 00 2a 41 44 4d 2a 00
Press return
write: lgw= 14, nbe= 14
Menu ACD:
20 + key          suppr obj      21 + cl name_deb num_deb nb [+kl..kn]:create
22 + tempo_RT ....
.....
19 + grid ----- Trace CSTA
200 ----- Options de trace
Start_date: 889524579 Tue Mar 10 10:09:39 1998
Version: 3.50.31, max_tx: 9999, Args:
```

200

Start the trace

- Run the command: `adm_acd`

- Available trace options

```
-v -notrace -tipc -tripc -twipc -dumpmsg -tmem -terr -tag -tbaro -tservpc  
-tevtticket -tcomticket -tperiod -tmao -tnotif -ttx -tmain -tcsta -tauto  
-trt -tstat -tftrrad -ttrrad -ttrunk -tperiod -tlowlayer -ttwin  
-taudit -tdefence -tlogrule -talb -tcomtichain -tlkticket
```

- Add an option: `0 p -<option>`

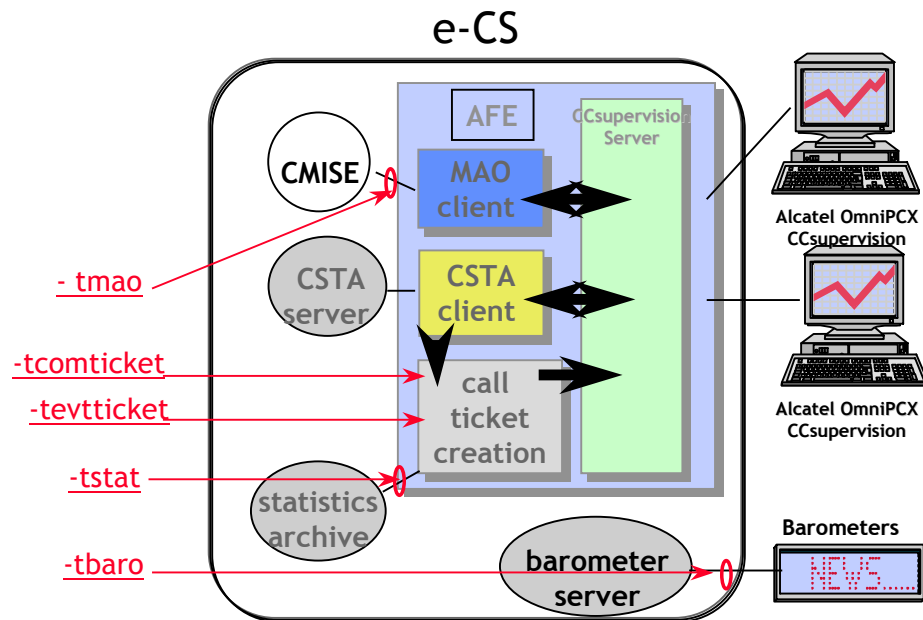
- Example: `0 p -tbaro` (enable traces for the wallboards)

- Remove an option: `0 r -<option>`

- Example: `0 r -tbaro` (disable traces for the wallboards)

- Options example:

- -tcomticket
- -tevtticket
- -tmao
- -tcsta
- -tstat
- -tbaro



■ Run the command: adm_acd

- Use the option 18 + Key N° in order to run a trace on a specific object (the key N° is stored in the catalog.cfg file)
- In this example, « 46 » is the key N° for the agent 34500

```
(4)pcx> adm_acd
Usage: °hostname$ °-servpcag ù -servccs ù -salb$
Connection with pcx , port 2538 is OK

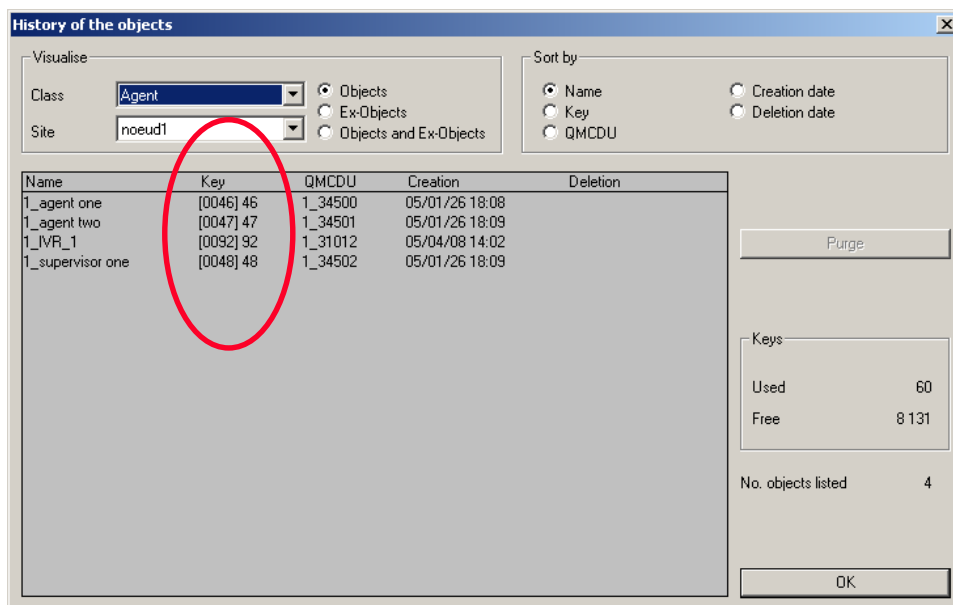
18 46

17h46:06 Agent::SetState agent one 34500 agstate_Free med:0, pi:0 ,aid:0 ,rg:0
17h46:06 Agent::SetServiceState agent one 34500 agstate_LoggedIn info 0 (csta)
17h46:06 Agent::SetServiceState agent one 34500 agstate_Affected info 0 (csta)
17h46:34 Agent::SetState agent one 34500 agstate_WrapUp med:0, pi:0 ,aid:0 ,rg
17h47:10 Agent::SetState agent one 34500 agstate_Free med:0, pi:0 ,aid:0 ,rg:0
17h47:13 Agent::SetState agent one 34500 agstate_Dialing med:0, pi -8193, aid 0, rg 0
17h47:15 Agent::SetState agent one 34500 agstate_Talking_Loc med:0, pi -8193, aid 0,
17h47:18 Agent::SetState agent one 34500 agstate_busy_tone med:0, pi -8193, aid
```

Note:

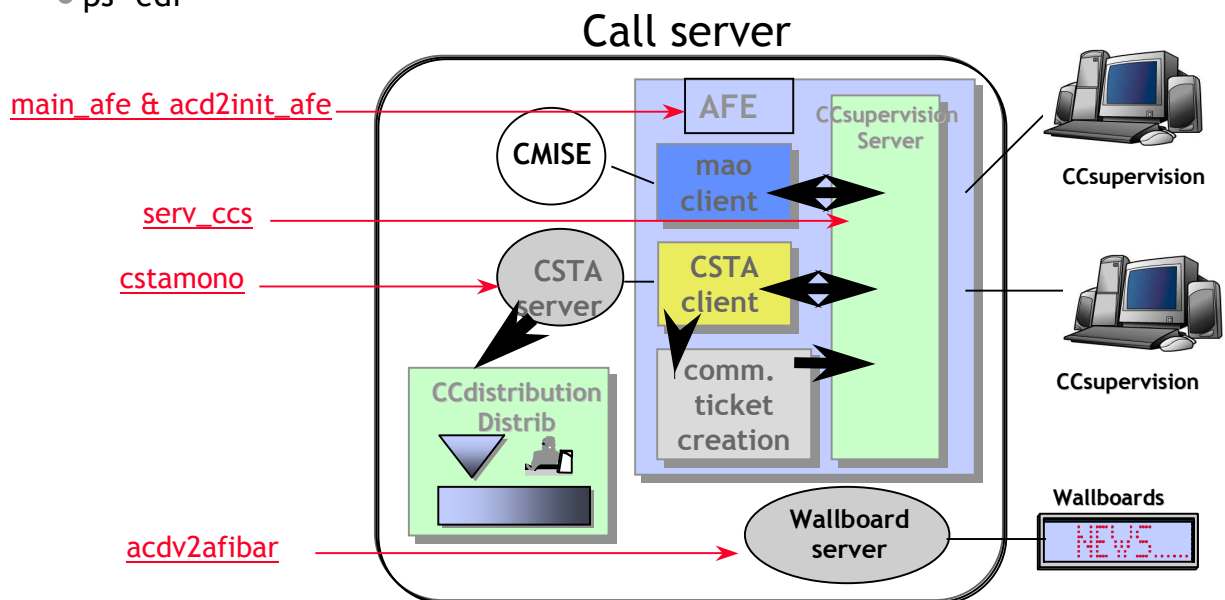
The key N° is stored in the catalog.cfg file

In order to visualize it, in the CCs, go to « Configurations / History »



■ Display the active processes on the OmniPCX Enterprise

- ps -edf



- The « parameters.cfg » file is stored in /usr3/afe
- It defines the default parameters which are transferred on initial start-up of the AFE
- Certain parameters can be modified (text editor vi), but are only acknowledged at midnight or on startup of the AFE
- This file can be modified only in accordance with the TSS (technical support service)

■ Explanation of several parameters

● Data linked to the statistic archiving

Parameters name	Default value	Meaning
quarters_stat_timing	1	periodicity in ¼ hour
weeks_period1	5	number of weeks for conservation of detailed statistics (hryymmdd.sta)
months_period2	12	nb of months for conservation of concatenated statistics: dy<date>sta et ev<date>.sta
batch-hour	1	off-peak time for concatenations and purges
nb_max_kbytes_fstat	400000	disk quota for statistics files (sta+tmp)
nb_max_kbytes_tmp	100000	quota for .tmp files
nb_max_kbytes_ftick	30000	max. size of communication ticket files

■ /usr3/afe

● Data linked to the Excel statistics

Parameters name	Default value	Meaning
histo-pilot	5 15 30 60	4 successive thresholds in s for pilot histog
histo-team	10 30 60 120	4 successive thresholds in s for teamhistog
talking_threshold	2	1...n sec for "served_quickly" call calculation

● Data linked to the « logged agents »

Parameters name	Default value	Meaning
ETPaveragedOnPeriod	0	If 1, AFE computes FTE over 24h and not on logon/logoff duration.
ETPincludeWithdraw	0	If 1, agents in withdraw mode are included in FTE computation.

FTE = The Full Time Equivalence (FTE) is the average number of agents assigned and not withdrawn from the agent group. This number is calculated on the duration of the MSP and is refreshed according to the real time period.

■ /usr3/afe

- Data linked to the alert thresholds (pilots, PG...)

Parameters name	Default value	Meaning
QS_Level	80	QS level on a pilot
QS_ResponseThreshold	10	response time for QS on a pilot
TalkingDurationMax	120	max. conversation time on a pilot
TalkingDurationMin	3	min. conversation time on a pilot
WrapUpDuration	10	wrap-up time duration on a pilot
Efficiency	90	efficacy on a pilot (max. calls abandoned)
WaitingDuration	15	alert threshold on a queue
RingingDuration	15	ringing threshold on a processing group
NoResponseNb	10	no. no reply on a processing group
WithdrawalDuration	30	withdrawal duration on a PG
PrivTalkDuration	10	duration of private communication

■ Miscellaneous data

Parameters name	Default value	Meaning
real_time_timing	3	terminals refresh periodicity in seconds
ExceptPrimCalendarOn	1	exceptional pilot calendar enabled (0=off)
ExceptSecCalendarOn	1	exceptional distribution calendar enabled (0=off)
rcp_twincpu_mode	1	update backup CPU (0=link C1, 1=Ethernet)
serv_ccs_on_dhs	1	If 1, serv-ccs process is started up on <i>OmniPCX Enterprise</i>
TokenTimeOut	48	Validation time for a multi-site token between 1h and 168h.

Alcatel-Lucent OmniTouch Contact Center Standard Edition



Contact Center Standard Edition in Network



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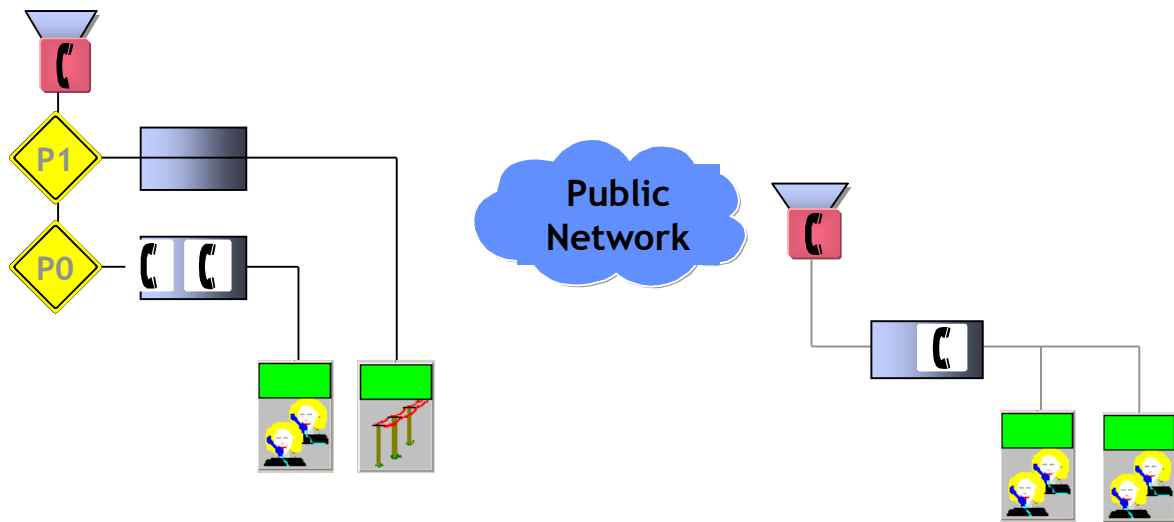
1

OBJECTIVES

- ◆ To describe the principle of the blind & intelligent mutual aid
- ◆ To name and define the objects (queues and PG)
- ◆ To name the restrictions of the mutual aid
- ◆ To describe the behavior in case of queuing or ringing overflow
- ◆ To describe the mutual aid in address of blocking and general forwarding of the pilot

■ Blind Mutual Aid

- No ABC-F link between ACD nodes
- Doesn't transfer ACD information
 - Pilot's state is unknown
 - On the remote ACD node, calls are handled as new calls



■ Defining specifics objects

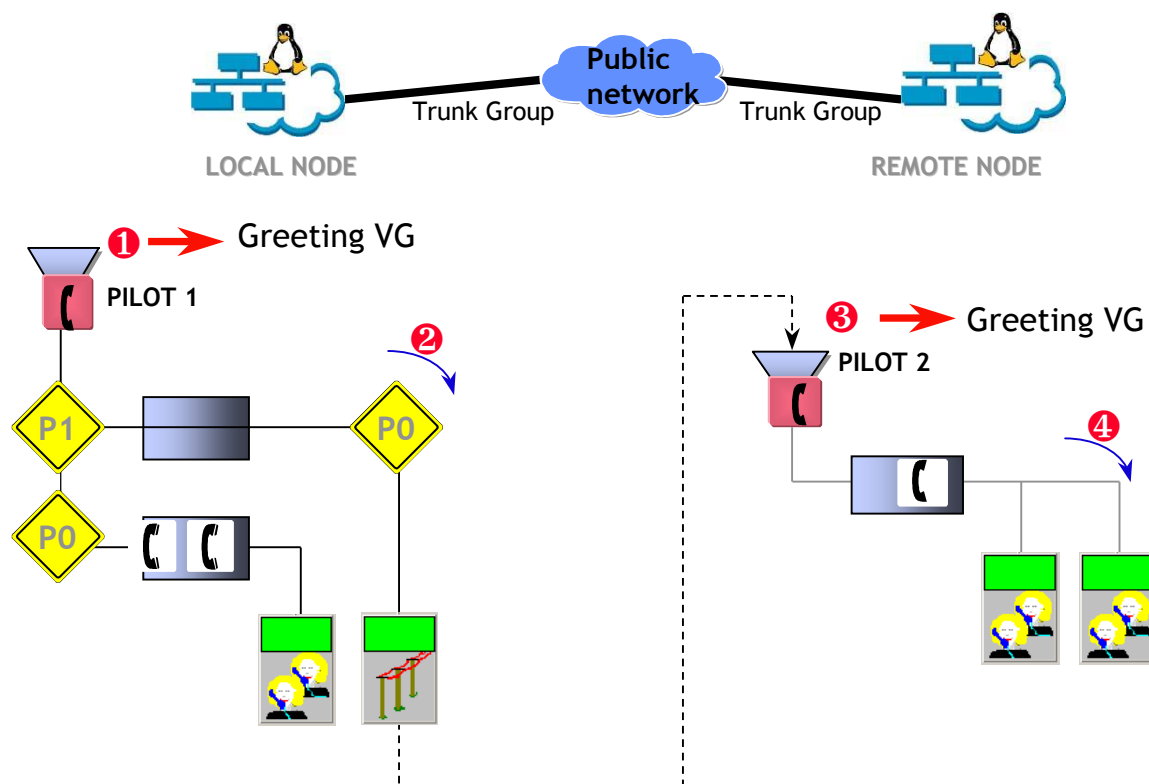
- Mutual aid queue:
 - To distribute calls to rerouting or forwarding processing groups.
- Rerouting processing group:
 - To rout calls to an external number : It must be a **direct abbreviated number** (speed dialing number)
 - It can be the number of a pilot in another CCdistribution
 - Rerouting processing group has no call selection priority because it serves a mutual aid queue.

Restriction: the call is handled normally.

Note:

In management, take care about the connection category N° 5→ 5

Indeed, it has to be validated, otherwise the incoming call (on the pilot) won't be able to be rerouted through the trunk group



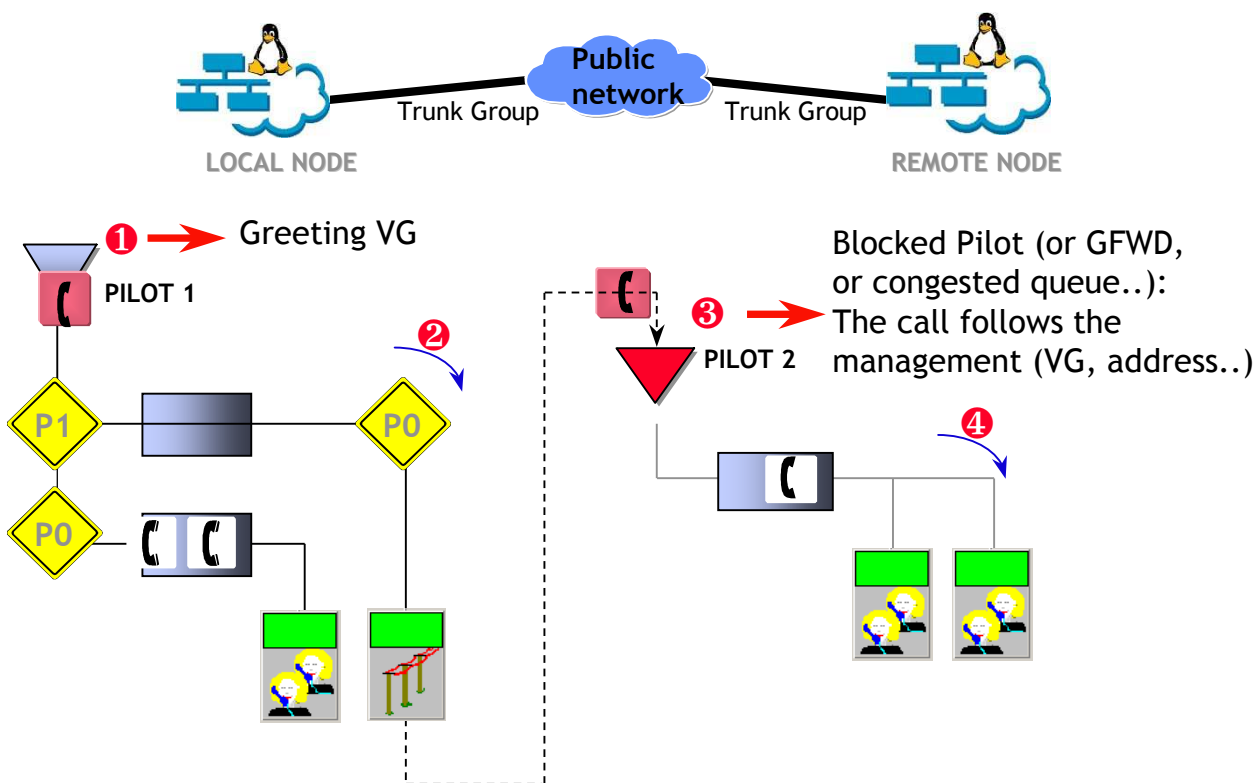
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4

The call received on the remote ACD is considered like a new call.

So on the remote ACD

- The caller has the greeting guide
- The agent who received the call does not know it is a call from another ACD
- In the CCdistribution statistics is like a new call
- The local ACD does not know that the remote is closed or blocked



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5

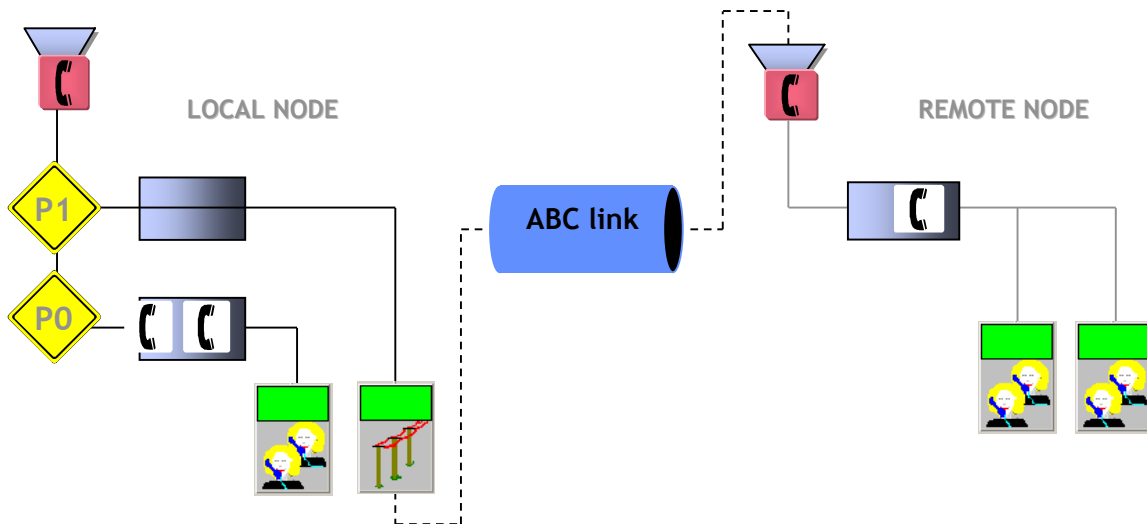
The call received on the remote ACD is considered like a new call.

So on the remote ACD

- The caller has the greeting guide
- The agent who received the call does not know it is a call from another ACD
- In the CCdistribution statistics is like a new call
- The local ACD does not know that the remote is closed or blocked

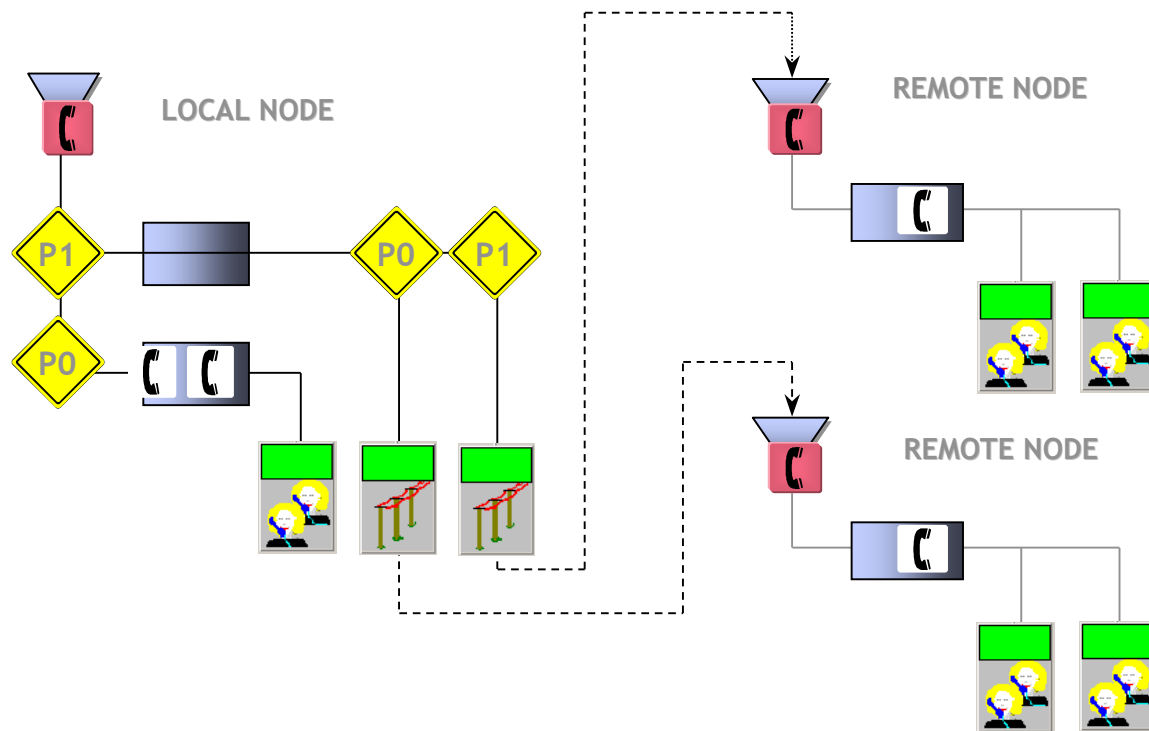
■ Introduction

- Intelligent mutual aid is used in homogeneous or heterogeneous networks to rout calls to remote ACDs depending on their state.



■ Defining specifics objects

- Mutual Aid queue:
Distributes calls to Rerouting Processing Group(s).
- Rerouting Processing Group:
Routes calls to a pilot of another ACD
- Rerouting PG has only one distribution priority
because it serves a Mutual Aid queue.

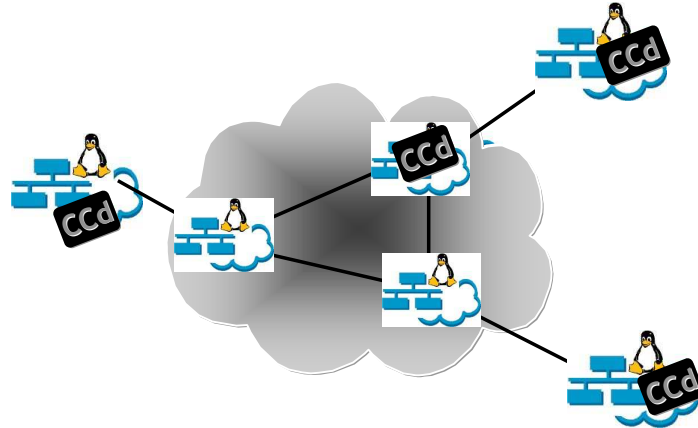


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8

Mutual aid to an adjacent or non-adjacent node
Originating pilot controls rerouting
Path replacement (optimization of the path used) on switch to speech
Assessment of the remote pilot's state before diversion

- Intelligent mutual aid is available in the ABC network between two CCdistribution systems
 - The CCdistribution systems do not have to be adjacent

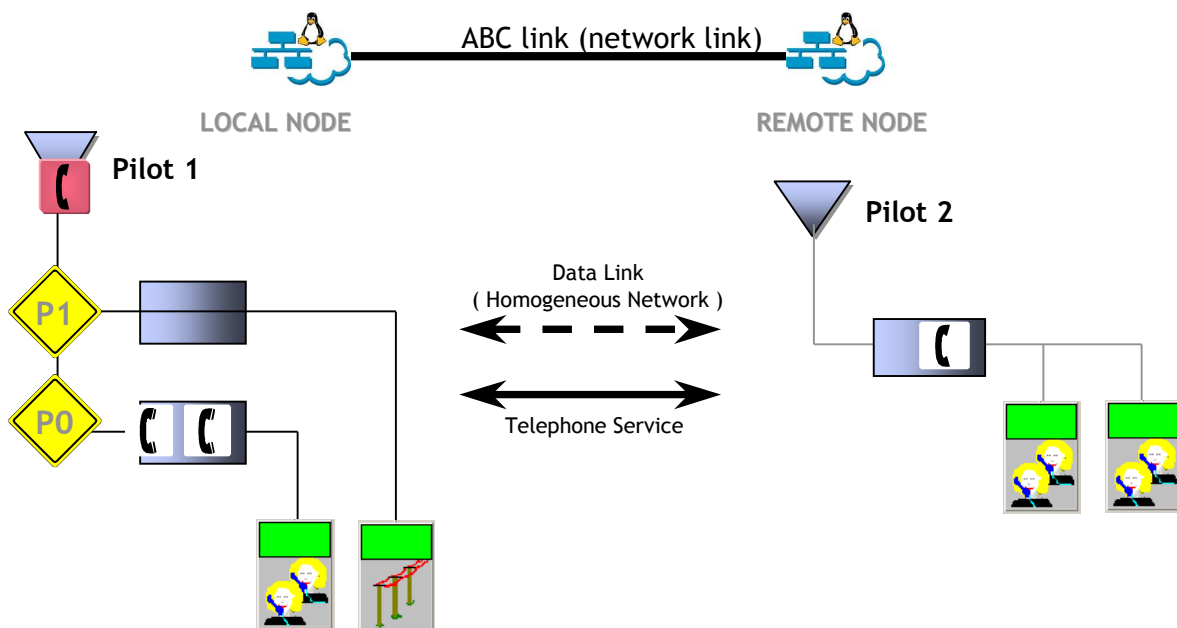


- Transit nodes can be:
 - Alcatel-Lucent OmniPCX Enterprise with or without CCdistribution
 - Any PABX able to support (transparently) the ABC-F protocol (Alcatel-Lucent OmniPCX Enterprise, A4300M/L)

■ Facilities

- Display on the remote node's station
 - Pilot requested on originating node
 - Overall waiting time (on originating node and local node)
 - e.g.: the queue overflow time to remote pilot
- Voice Guides
 - Remote node is informed about which guides have been heard on the local node
 - e.g.: Greeting Voice Guide already heard on the local node,
do not broadcast it on the remote node

■ Information exchanged



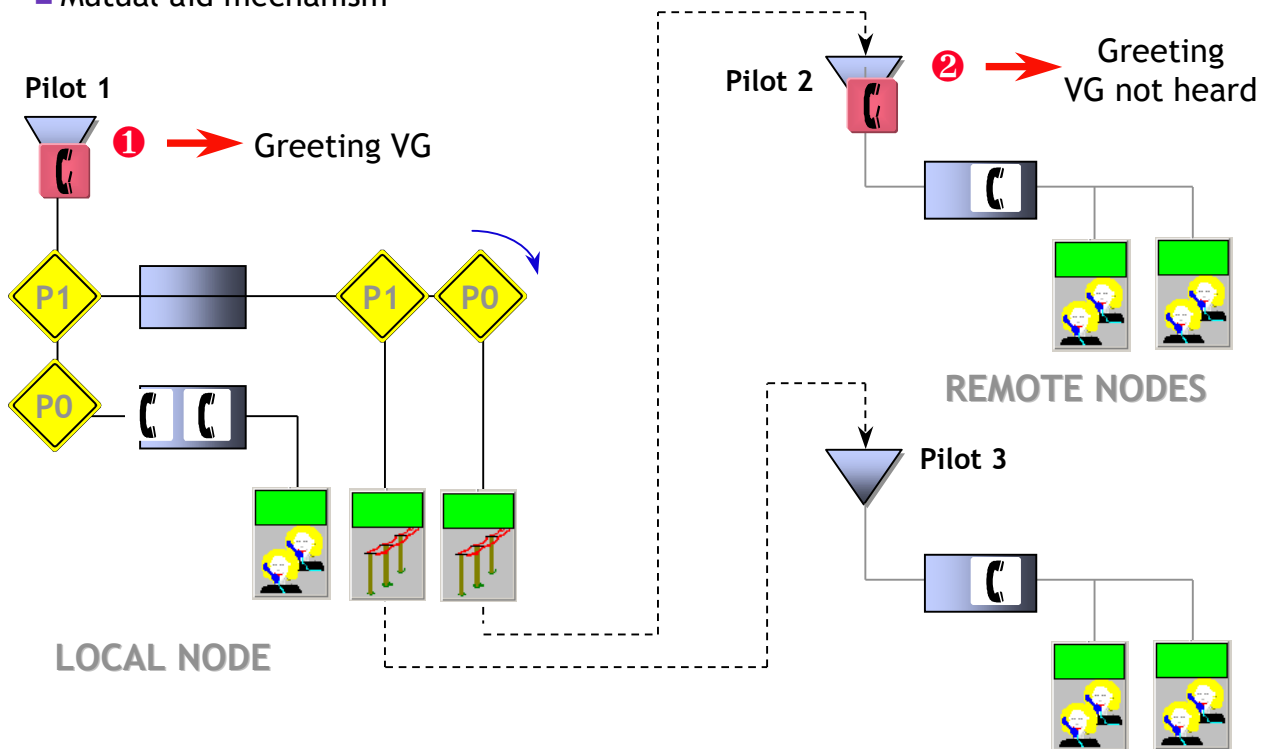
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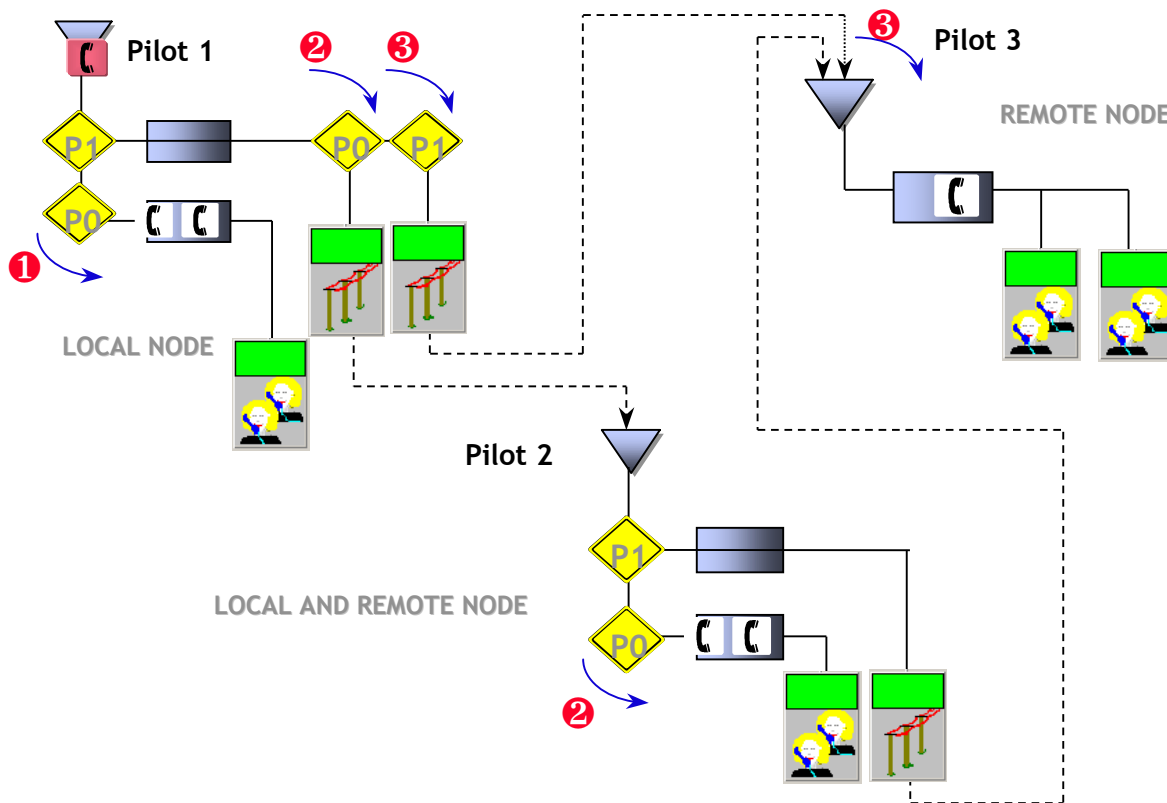
11

The remote pilot's state is obtained

- for a heterogeneous network using the "snap-shot" technique, the state of the pilot is read when the call is distributed using a routing prefix
- for a real time homogeneous network the pilot's state is interchanged via the data link set up using a pilot network prefix. The local node receives the state transitions of the remote pilot.

■ Mutual aid mechanism





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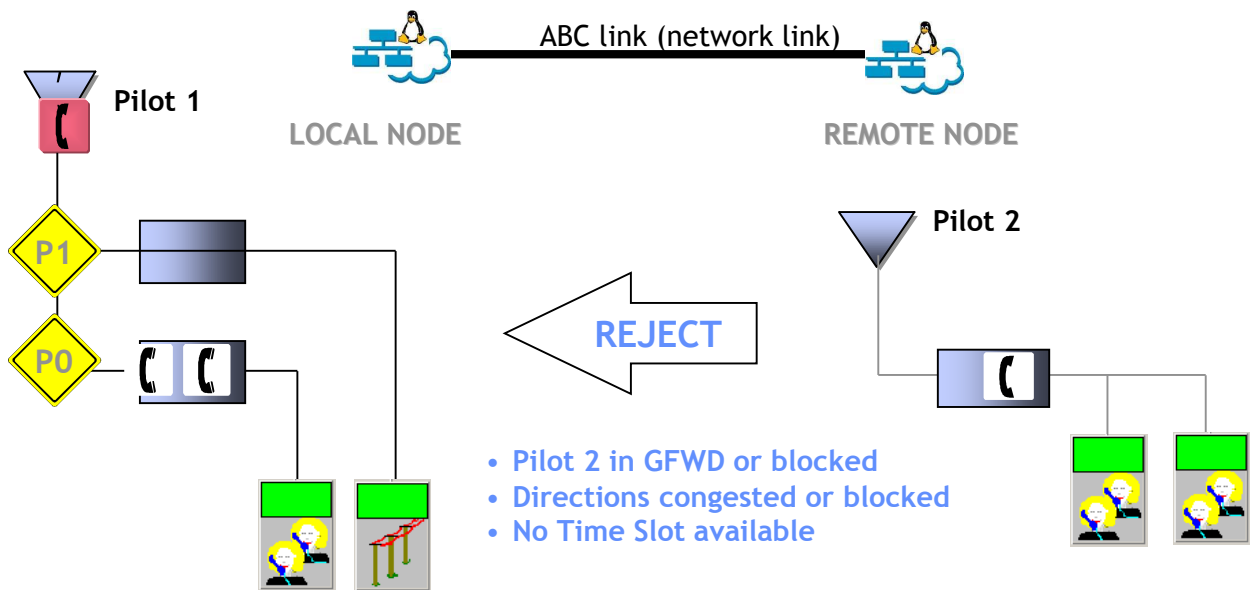
13

A call comes into pilot 1, It can be routed :

- to the queue
- If the queue is congested, to the mutual aid queue and priority 0 rerouting group
- If pilot 2 is not in normal mode or the queue is congested, to priority 1 rerouting group of pilot 1 (because a call that has been received by rerouting can not be rerouted again).

The pilot 2 mutual aid queue is used for pilot 2 calls only.

■ Processing rejected on the remote node



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The Expected waiting time could not be read on the remote pilot

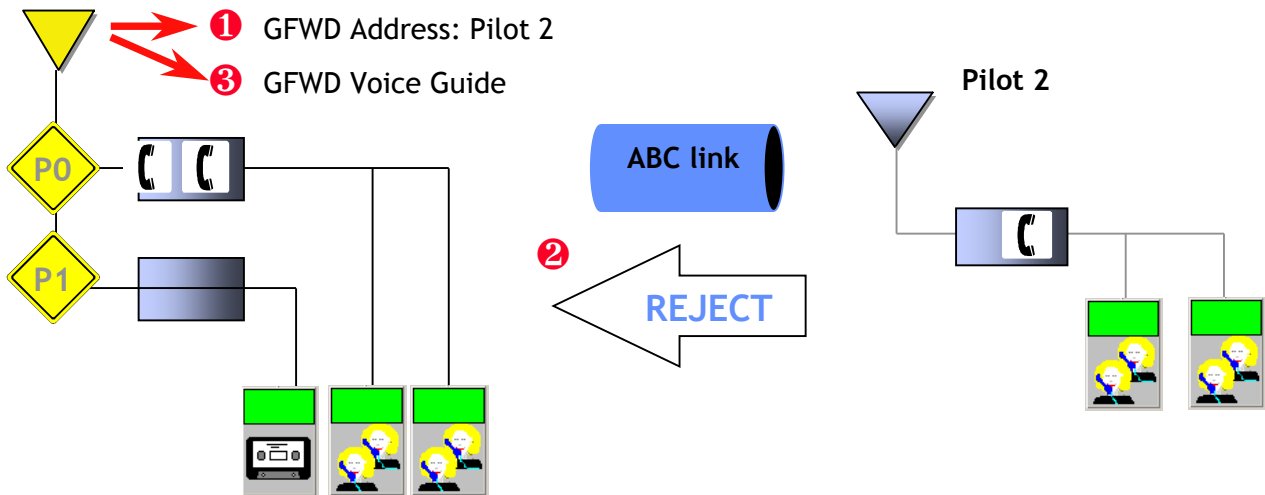
If the remote pilot is in GFW or blocked, the mutual aid doesn't work and the call is rejected

"disconnect" message from the destination node

The pilot on the remote site must be open in normal state and a queue must be free.

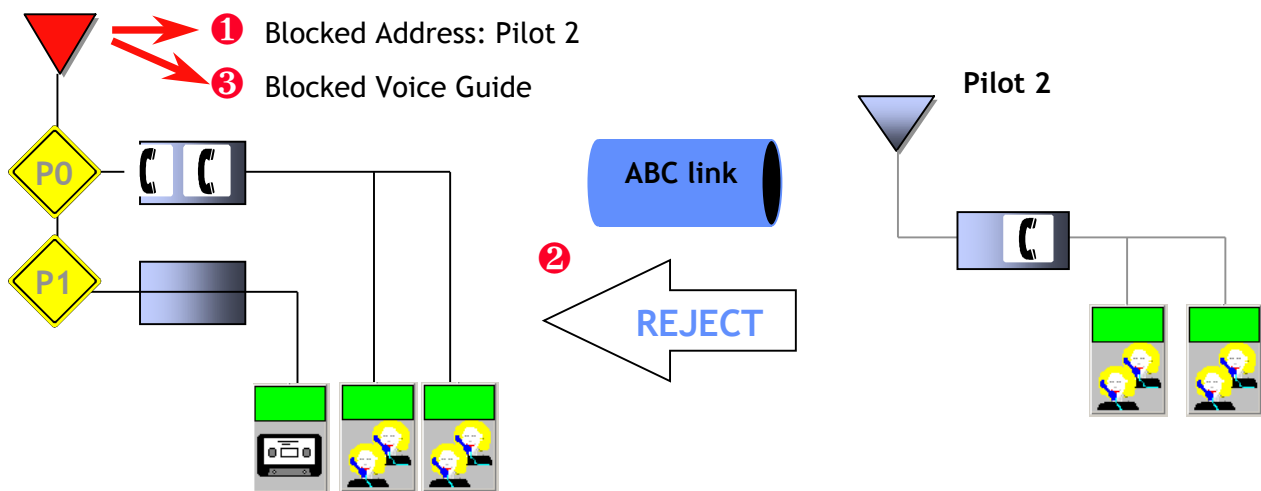
■ Local Pilot is in General Forwarding

Pilot 1 in GFWD

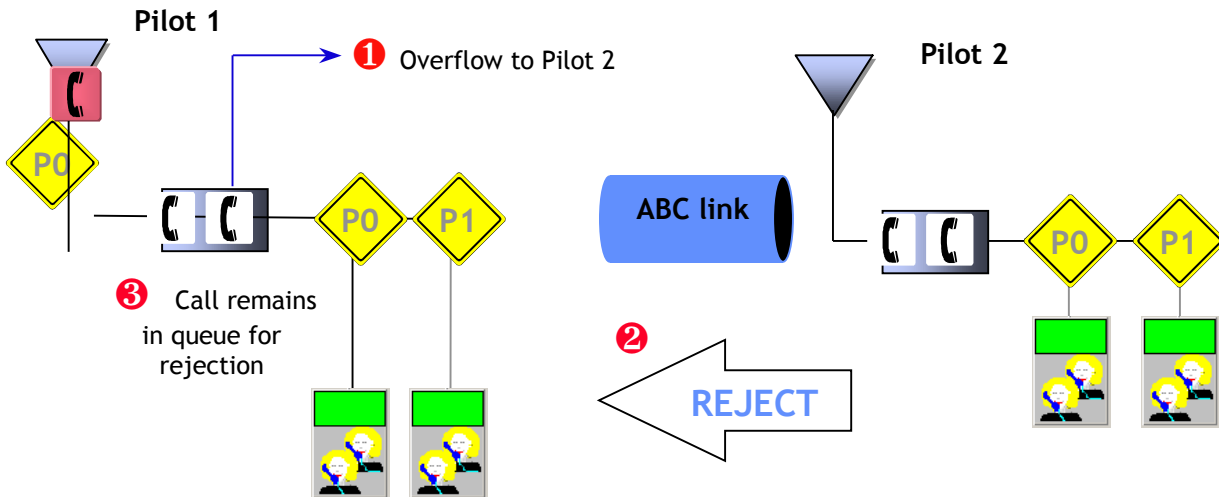


■ Local Pilot is Blocked

Pilot 1 Blocked



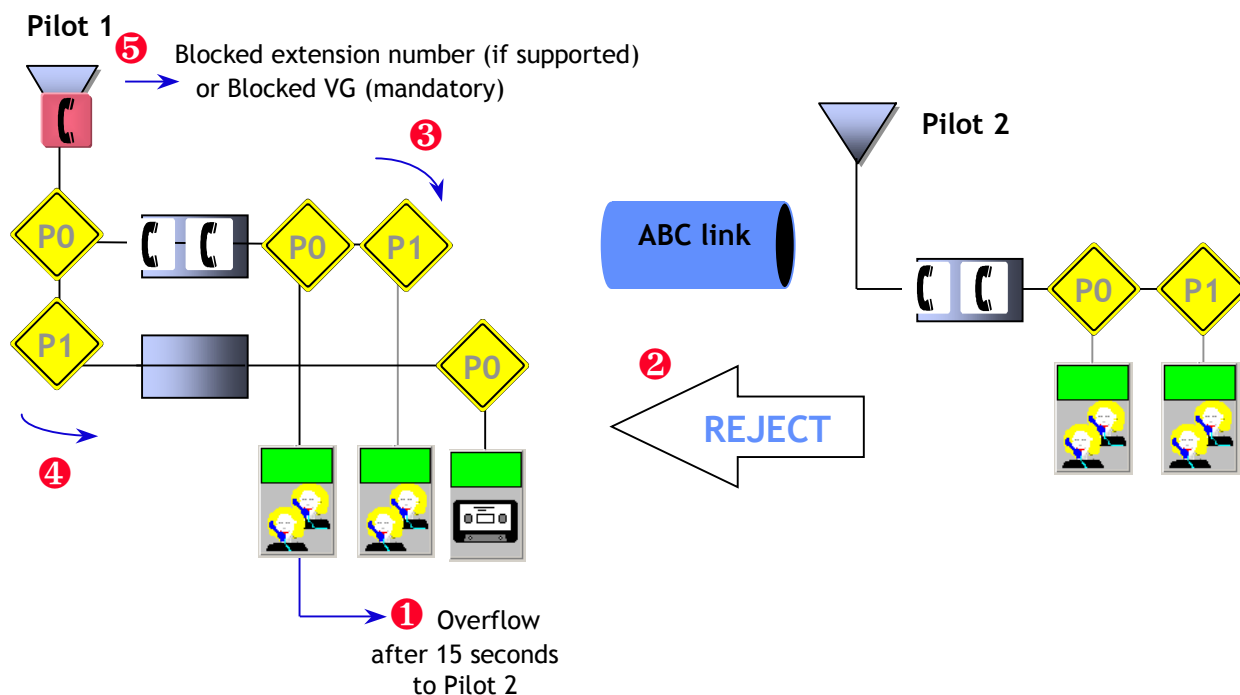
■ Queuing overflow to a remote pilot



For the call at the head of the queue, the call overflow does not occur unless an extension number is supported and is free, otherwise the call remains in the queue.

If the extension has a pilot number, the pilot must be in normal state, no overflow even if using the blocking or general forwarding rule.

■ Ringing overflow to a remote pilot



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On overflow on ringing without an extension number or with the extension number out of service, the system searches for the next direction with the lowest cost:

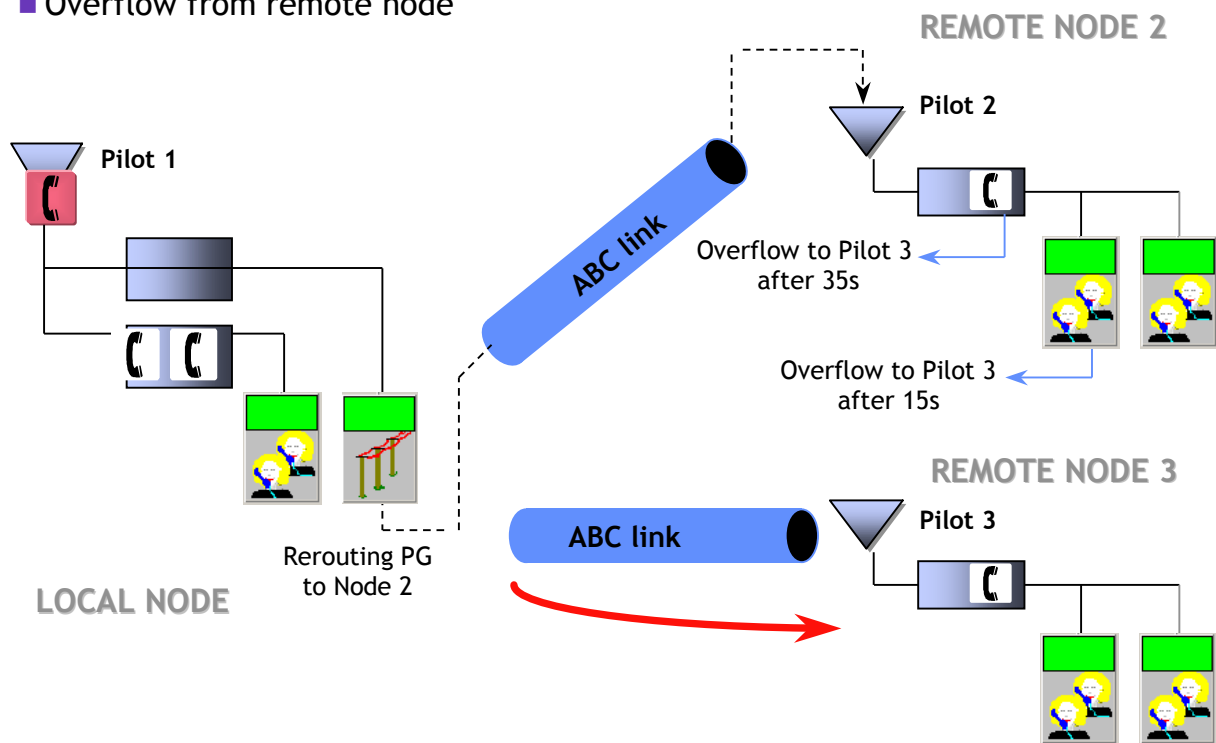
- a resource serving the same queue
- another direction for the pilot
- blocking extension number or general forwarding
- Blocking guide or general forwarding

If the pilot is on general forwarding and is using the general forwarding rule for step 6, the call will be routed to the GFW number if supported or to the guide (mandatory).

■ Call handling refused on remote node

Remote Pilot address	Consequences of rejection
Rerouting processing group	Local redistribution
General Forwarding Address of the local node	General Forwarding Voice Guide of local node
Blocking Address of the local node	Blocking Voice Guide of the local node
Overflow in queue	Call remains queued
Overflow on ringing	Local redistribution

■ Overflow from remote node



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The call is rerouted to node 2.

In node 2, overflow has been configured for the queue and overflow on ringing for the processing group to node 3.

So the local node reroutes the calls to node 3.

For this to work, the network prefixes of each remote pilot must be supported in each node.

■ Management

- Creating a call prefix for the remote pilot
 - Translator/Prefix Plan
 - Routing No.
 - Network No.
- Creating the rerouting group
 - Application /CCD/Processing Group
 - Number of the remote pilot (Network No. or Routing No.)
- Creating a mutual aid queue
 - Application/CCD/Queue
 - Mutual aid type
 - Direction to the Processing Group
- Managing the distribution rule
 - Application/CCD/Distribution Rule/Resource selection configuration

- Maintenance

- t3 command

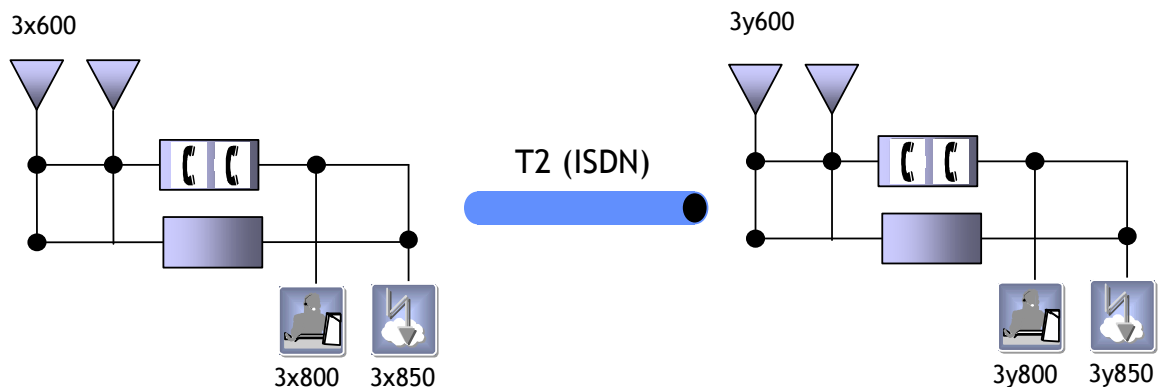
HANDS-ON EXERCISES

OBJECTIVE

- To learn how to manage CCdistribution in network mutual-aid, to test the blind and the mutual aid

MANAGEMENT

1. Manage the following configuration:



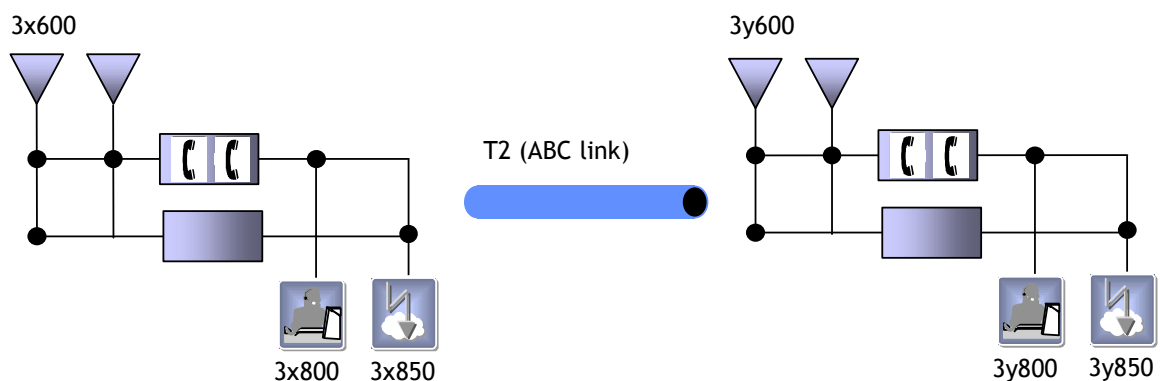
Note: x is the local node number, y is the remote system

Note: *Keep the previous CCd matrix management, you have only to add a “rerouting” PG to the mutual aid waiting queue*

2. Create a direct speed dialling number (3x123) to call the remote pilot number
3. Create the “rerouting” PG (3x850) and declare as rerouting number the speed dialling number
Connect this PG to the mutual aid waiting queue (3X701).
Close the forward PG direction

4. Test the mutual-aid and check
 - The listened voice guides.
 - The information displayed on the remote node.
5. Put the remote pilot in blocked or general forwarding state, and test the blind mutual aid
How does it work?

6. Now we are going to use an ABC_F link



Note: x is the local node number, y is the remote system

7. Use several commands in order to check the ABC-F link status
 - suproutage
 - tunstat
 - ping the remote IP/X25 tunnel (172.30.Network.node)
8. Create a network number prefix (3y600) to call, through the ABC-F link, the remote pilot
9. Modify the management of the rerouting PG (3X850). Instead of using a speed dialling number, use the network number (which contains the remote pilot number)
10. Test the mutual-aid and check
 - The listened voice guides.
 - The information displayed on the remote node.
11. Test the queuing overflow : if a call waits more than 25 sec in the normal waiting queue (3X700), the call will overflow to the remote pilot

12. Check the ringing overflow : if a call stays in the agent PG (3X800) more than 20 sec (no agent answers the call) , it will overflow towards the remote pilot.
13. Test the re-routing address to the remote pilot when your local pilot is in general forwarding and blocked status.
14. Test the mutual-aid when the remote pilot is in general forwarding or blocked status.
15. Test the mutual-aid when the ABC-F link is saturated (no free time slots)
16. Use the “t3” command to run a trace.

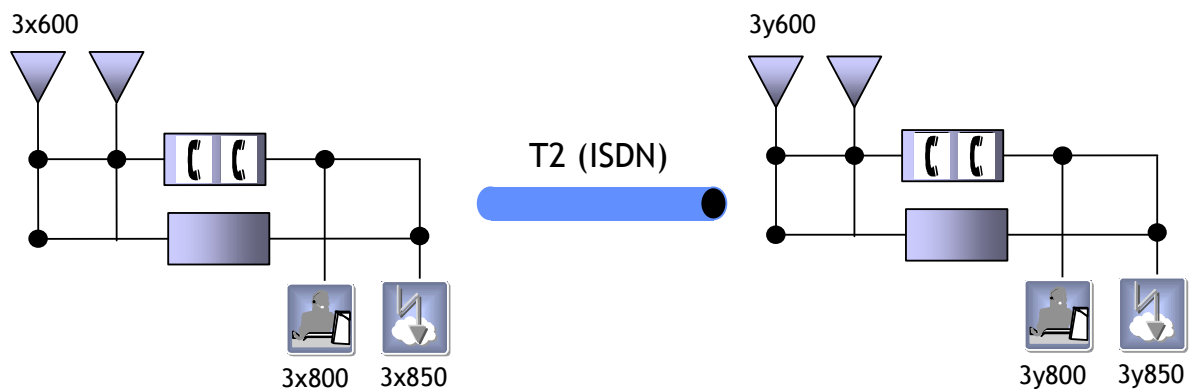
HANDS-ON EXERCISES SOLUTIONS

OBJECTIVE

- To learn how to manage CCdistribution in network mutual-aid, to test the blind and the mutual aid

MANAGEMENT

1. Manage the following configuration:



Note: x is the local node number, y is the remote system

Note: *Keep the previous CCd matrix management, you have only to add a “rerouting” PG to the mutual aid waiting queue*

2. Create a direct speed dialing number (3x123) to call the remote pilot number

First, we have to declare the numbers of speed dialing numbers that we are able to manage.

Go to: Speed dialing / direct speed dialing numbers / Review/modify

```
Review/Modify: Direct Speed Dialing Numbers
Node Number <reserved> : 104
Instance <reserved> : 1
Instance <reserved> : 1
Index for 1st speed dial number : 0
Length for speed dialing numbers : 10_
```

In this example, 10 speed dialing numbers can be created

Then, create the speed dialing number 3X123 which contains the remote pilot number (through ISDN trunk group) (here X=node number=4)

Go to: Speed dialing / direct speed dialing numbers / Direct SpdDl N° pref / create

```
Create: Direct SpdDl No. Pref.
Node Number <reserved> : 1
Instance <reserved> : 1
Instance <reserved> : 1
Direct Speed Dial No. Prefix : 34123
Call Number : #0420218435600
Directory name : remote
Directory First Name : pilot
Call Restrictions - Barring : + False
Overfl.Dir.Spd Dl.No. Pref. : -----
Auto.Attendant Calling Right : 0
Call Type : + Normal
Timed Forward.Dir.Spd.Dl.No. : -----
Range Number : 255
Can be Called/Dialed By Name : + YES
Displayed Name : -----
External DISA Dir.No. : -----
```

Note: Here call number = #042 0218435600; where:

1. #042: trunk group seizure prefix
2. 02184: NDI (remote installation number)
3. 35600: NDS (remote pilot number)

3. Create the “rerouting” PG (3x850) and declare as rerouting number the speed dialling number

Go to: Applications / CCD / Processing group / create

```

Review/Modify: Processing Group

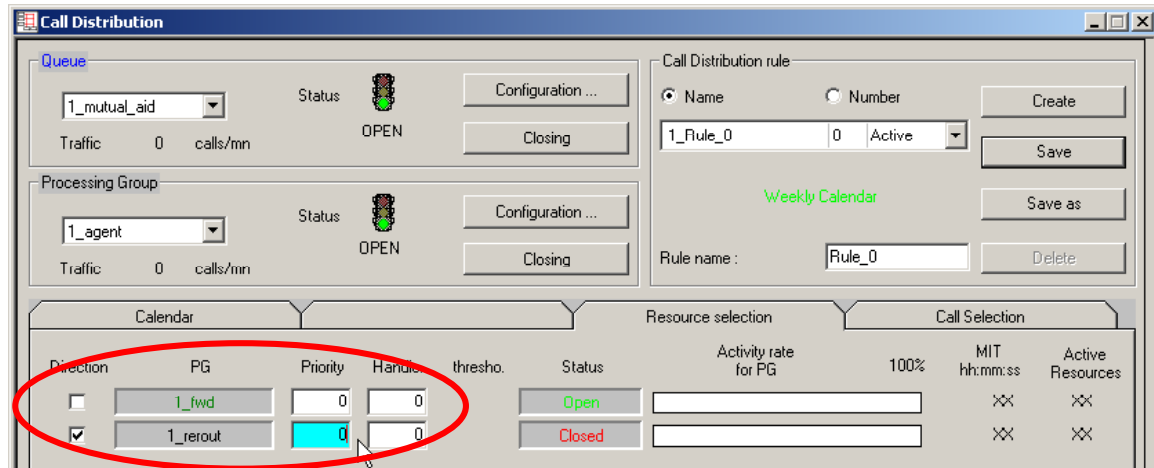
Node Number (reserved) : 104
Instance (reserved) : 1
Instance (reserved) : 1
Directory Number : 34850

Name : rerout_
Type + Rerouting
Manual Closure + False
Voice directory number : 34123
Data directory number : -----
  
```

Connect this PG to the mutual aid waiting queue (3X701)

From CCs, go to: configuration / queue and associate the mutual aid queue with the rerouting PG

Then **open** the rerouting direction and **close** the forward direction in the Distribution rule
From CCs, go to: Call Flow mgt / call distribution

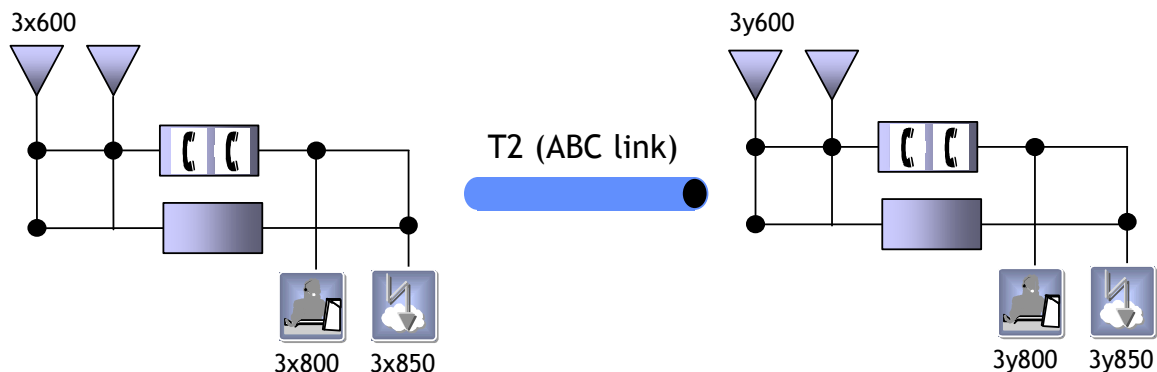


4. Test the mutual-aid and check
 - The listened voice guides: Greeting voice guides of both OmniPCX are broadcast
 - The information displayed on the remote node: The remote pilot name is displayed on agent set because through ISDN, it's impossible to send the originated called pilot name

5. Put the remote pilot in blocked or general forwarding state, and test the blind mutual aid
How does it work?

As it's a blind transfer, the rerouted call is considered as a new call on the remote node, so if the remote pilot is in general forwarding or if it is blocked, the call will follow this pilot management: we will use either an address (blockage or general forwarding) or a voice guide (blockage or general forwarding) or a routing rule

6. Now we are going to use an ABC_F link



Note: x is the local node number, y is the remote system

7. Use several commands in order to check the ABC-F link status
 - suproutage
 - tunstat
 - ping the remote IP/X25 tunnel (172.30.Network.node)
8. Create a network number prefix (3y600) to call, through the ABC-F link, the remote pilot
Go to: Translator / prefix plan / create

```

Review/Modify: Prefix Plan
Node Number (reserved) : 104
Instance (reserved) : 1
Number : 35600

Prefix Meaning + Network No.
Network Number : 1
Node Number/ABC-F Trunk Group : 5
Number With Subaddress (ISDN) : NO
Type + Pilot
Identifier : 0
  
```

Caution: This network number prefix type is: Pilot

9. Modify the management of the rerouting PG (3X850). Instead of using a speed dialing number, use the network number (which contains the remote pilot number)

From CCs, go to: configurations / Processing Group / PG others

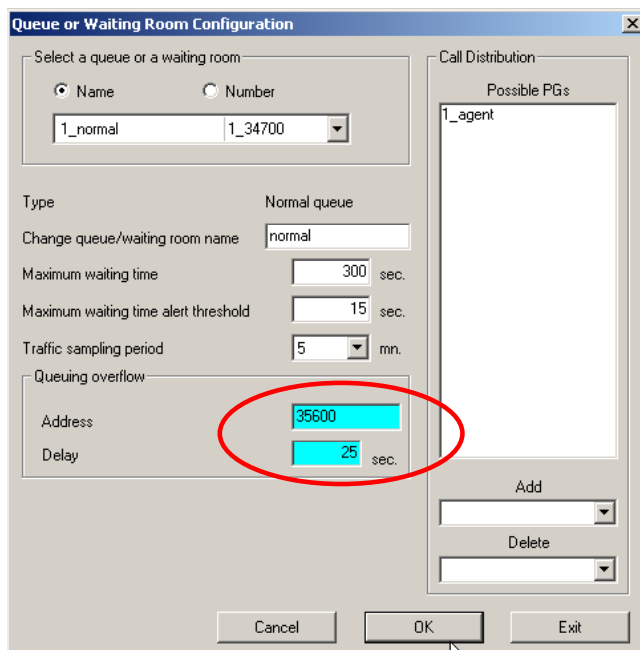
The image shows a 'PG Configuration' dialog box. It has a 'Select a PG' section with 'Name' selected and '1_rerout' in the text field, and 'Number' selected with '1_34850' in the dropdown. Below this, the 'PG type' is 'Rerouting'. The 'New name of the PG' is 'rerout'. The 'Rerouting address (voice)' field is highlighted with a red circle and contains the value '35600'. The 'Rerouting address (data)' field is empty. At the bottom are 'Cancel', 'OK', and 'Exit' buttons.

10. Test the mutual-aid and check

- The listened voice guides: Only the greeting voice guide of the originated called pilot is broadcast. Indeed, thanks to the IP/X25 tunnel, the remote node knows that a greeting voice guide has already been played so the greeting voice guide of the remote node won't be played.
- The information displayed on the remote node: The name of the called pilot (on the originated node) will be displayed on the agent set; The waiting time of the 2 nodes (originated and remote node) will be displayed on the agent set

11. Test the queuing overflow: if a call waits more than 25 sec in the normal waiting queue (3X700), the call will overflow to the remote pilot

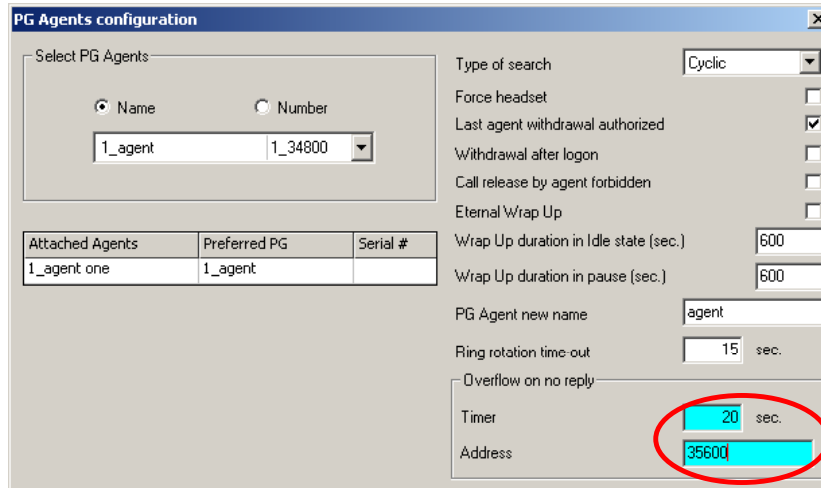
From CCs, go to: Configurations / queue and select the normal waiting queue



The image shows a screenshot of the 'Queue or Waiting Room Configuration' dialog box. The 'Name' radio button is selected, and '1_normal' is entered in the text field. The 'Number' dropdown shows '1_34700'. The 'Type' is 'Normal queue'. The 'Change queue/waiting room name' field contains 'normal'. The 'Maximum waiting time' is set to 300 sec. The 'Maximum waiting time alert threshold' is set to 15 sec. The 'Traffic sampling period' is set to 5 mn. In the 'Queuing overflow' section, the 'Address' field is highlighted with a red circle and contains the value '35600'. The 'Delay' field contains '25 sec.'. The 'Call Distribution' section shows 'Possible PGs' with '1_agent' listed. There are 'Add' and 'Delete' buttons below this list. At the bottom of the dialog are 'Cancel', 'OK', and 'Exit' buttons.

12. Check the ringing overflow: if a call stays in the agent PG (3X800) more than 20 sec (no agent answers the call) , it will overflow towards the remote pilot.

From CCs, go to: Configurations / Processing group and select the agent PG

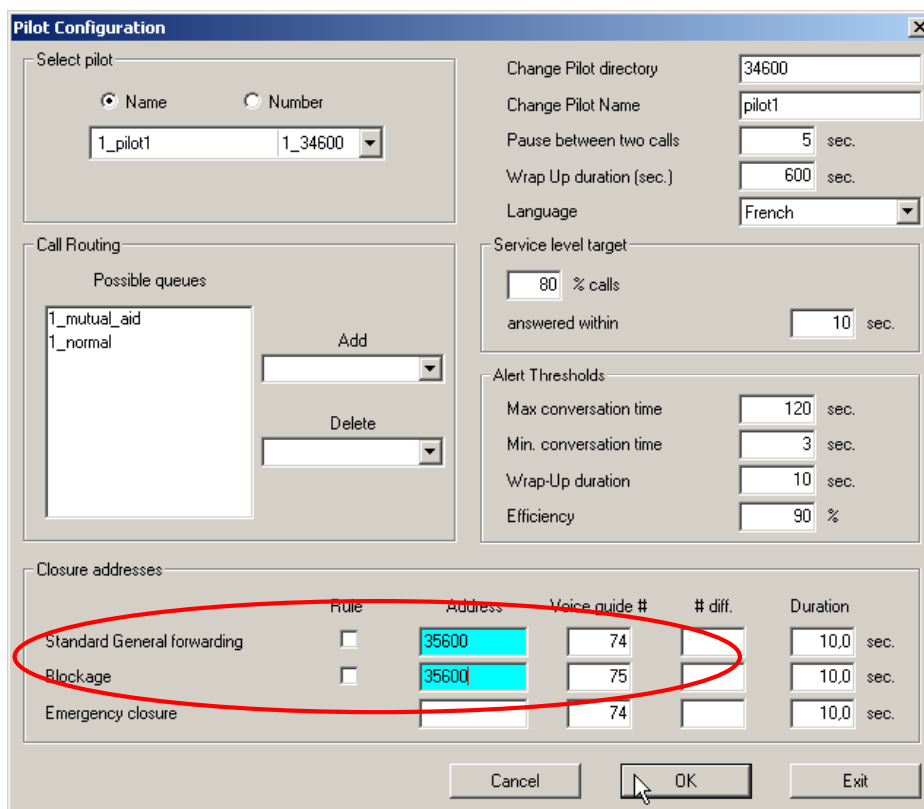


The 'PG Agents configuration' dialog box shows settings for agent PG 1_34800. The 'Timer' field under 'Overflow on no reply' is set to 20 sec. and is circled in red. The 'Address' field is set to 35600 and is also circled in red.

Attached Agents	Preferred PG	Serial #
1_agent one	1_agent	

13. Test the re-routing address to the remote pilot when your local pilot is in general forwarding and blocked status.

From CCs, go to: Configurations / Pilot and select the right pilot



The 'Pilot Configuration' dialog box shows settings for pilot 1_34600. The 'Change Pilot directory' field is set to 34600. The 'Change Pilot Name' field is set to pilot1. The 'Pause between two calls' field is set to 5 sec. The 'Wrap Up duration (sec.)' field is set to 600 sec. The 'Language' field is set to French. The 'Service level target' field is set to 80 % calls. The 'answered within' field is set to 10 sec. The 'Alert Thresholds' section shows: Max conversation time (120 sec.), Min. conversation time (3 sec.), Wrap-Up duration (10 sec.), and Efficiency (90 %). The 'Closure addresses' section shows three rules: Standard General forwarding, Blockage, and Emergency closure. The 'Address' field for Standard General forwarding and Blockage is set to 35600 and is circled in red. The 'Voice guide #' field for Standard General forwarding and Blockage is set to 74 and 75 respectively. The 'Duration' field for all three rules is set to 10,0 sec.

Possible queues
1_mutual_aid
1_normal

14. Test the mutual-aid when the remote pilot is in general forwarding or blocked status.
 - Mutual aid is rejected
15. Test the mutual-aid when the ABC-F link is saturated (no free time slots)
 - Mutual aid is rejected
16. Run “t3” to launch a trace

Alcatel-Lucent OmniTouch Contact Center Standard Edition



Remote PG



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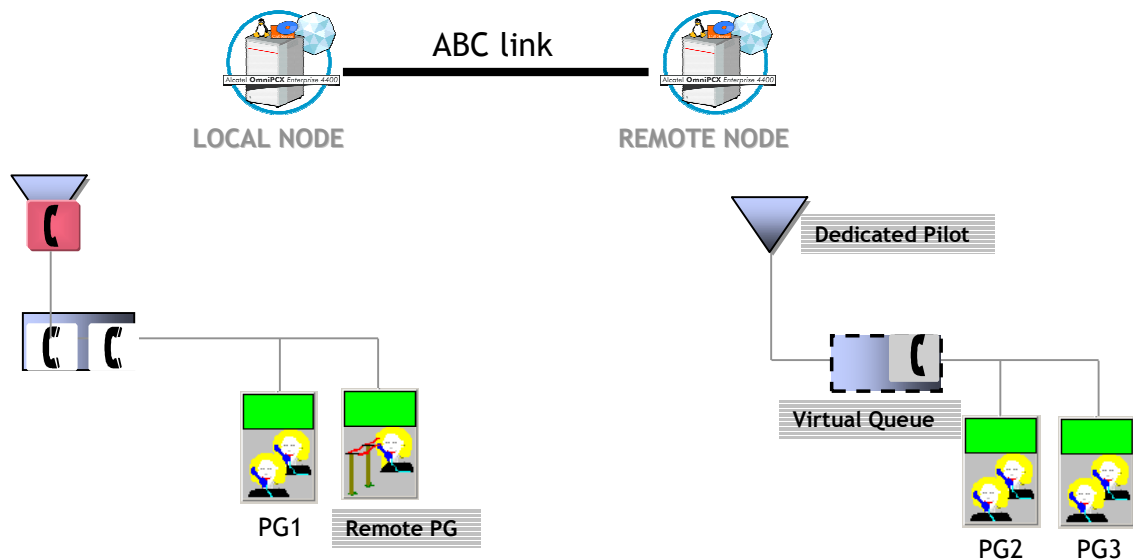
1

OBJECTIVES

- ◆ To describe the principle of the remote PG
- ◆ To name and define the objects
- ◆ To know the conditions of mutual aid
- ◆ To know the offered facilities
- ◆ To describe operation with different or identical priorities, handicaps and distribution thresholds
 - Operation for the selection of call
 - Operation in the case of the overflow
 - Case of refusal of mutual aid
- ◆ To know and describe the tools for maintenance

■ Distributed Mutual Aid

- Distributes calls to different sites through an homogeneous OmniPCX network
- Calls are handled by agents regardless their localization in the network.



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The aim is to have one or more processing groups or IVRs transferred to other nodes (in multi-site configurations). The call distribution function is handled by the local site.

■ Definition of specific objects

● Remote PG:

- Processing Group of the local node,
- Has a minimum waiting time threshold (distribution threshold) and a resource selection priority but no call selection priority.

● Virtual Queue:

- Single queue serving a dedicated pilot on the remote site
- This queue is handled by agent or IVR Processing Groups
- The virtual queue is the image of the head of the normal queue, so it contains only the characteristics of the call (or calls) at the head of the queue (or queues).

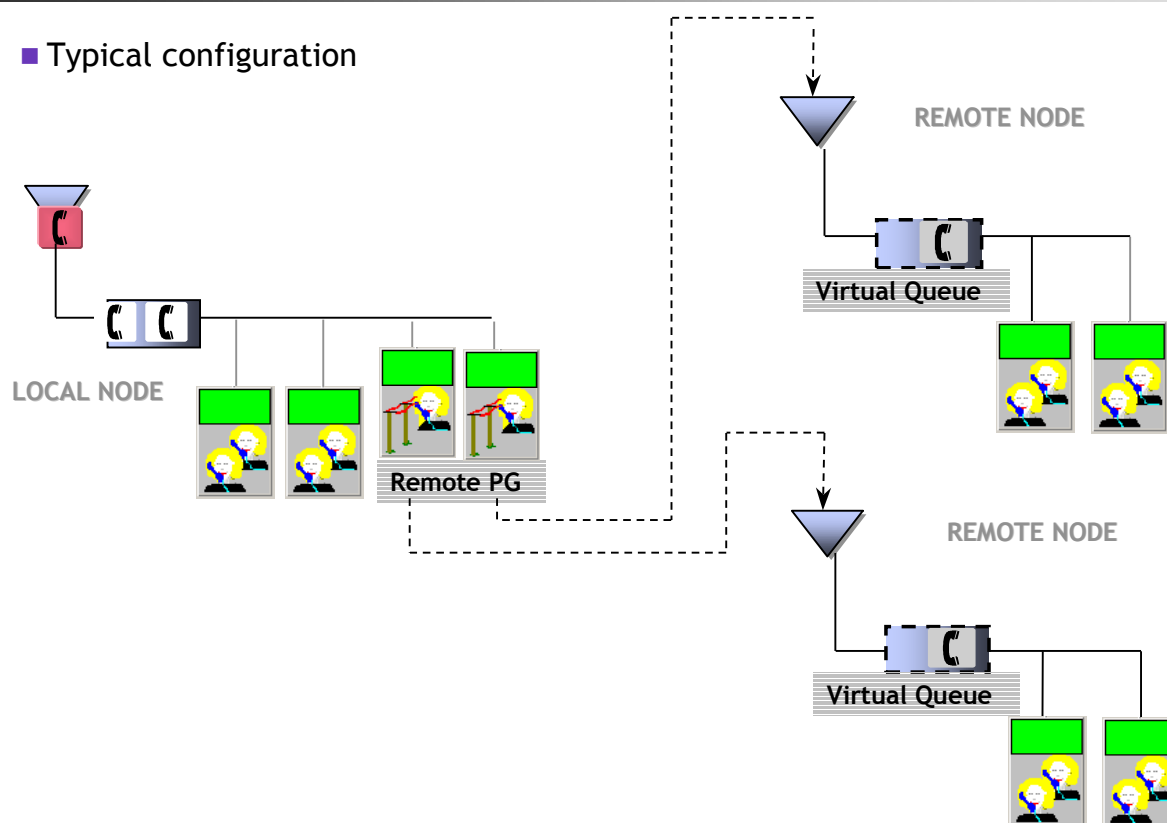
● Dedicated Pilot:

- Remote Pilot is dedicated to one Virtual Queue.
- Can only be called by one or more Remote PGs.

■ Characteristics

- A remote PG can serve several queues.
- A Dedicated Pilot:
 - can be served by only one Virtual Queue
 - can serve several remote PGs
- A Virtual Queue:
 - can serve several Dedicated Pilots
 - can be served by several agents or IVR PGs
- An agent PG can serve several queues (normal or virtual)

■ Typical configuration

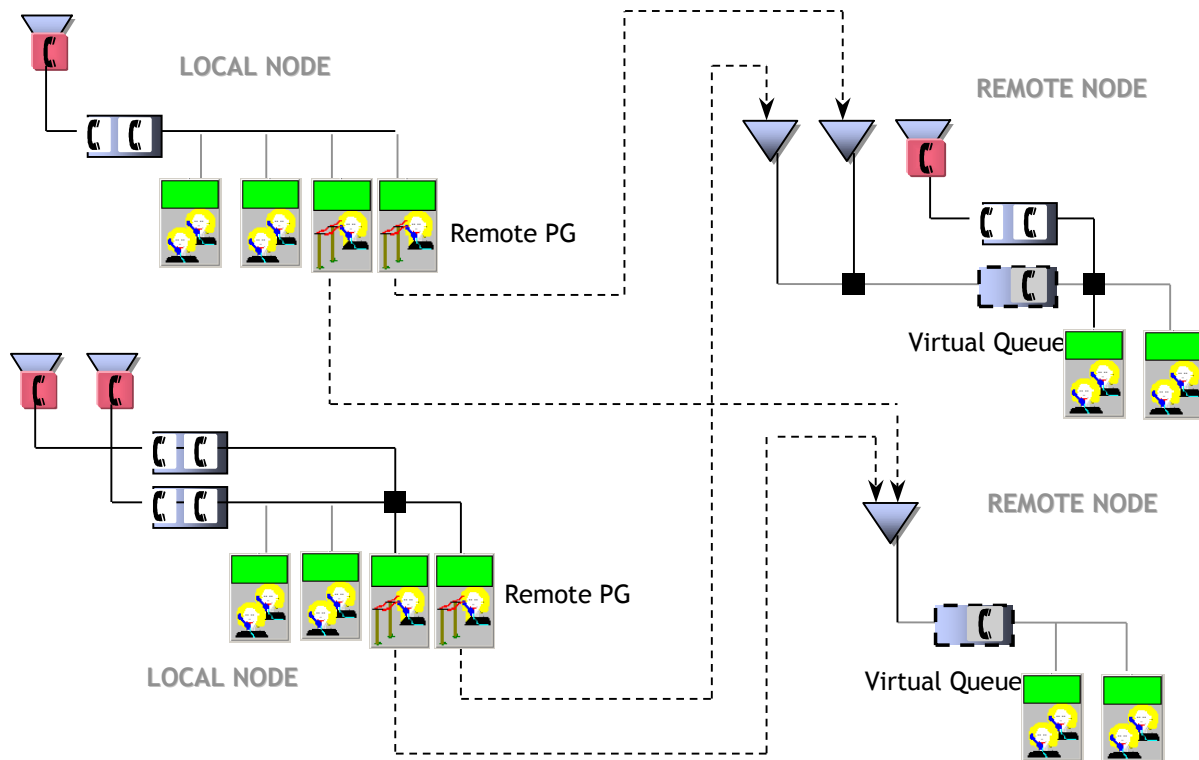


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Call queuing is managed locally so as not to incur additional call costs.

Real time interchange of status information between ACDs over a data link (signaling).



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Different possibilities for the CCd architecture:

- A remote PG and a pilot dedicated to a virtual queue
- Two remote PGs, a pilot dedicated to a virtual queue
- Two pilots dedicated to one virtual queue
- One queue, several remote PGs
- And so on....

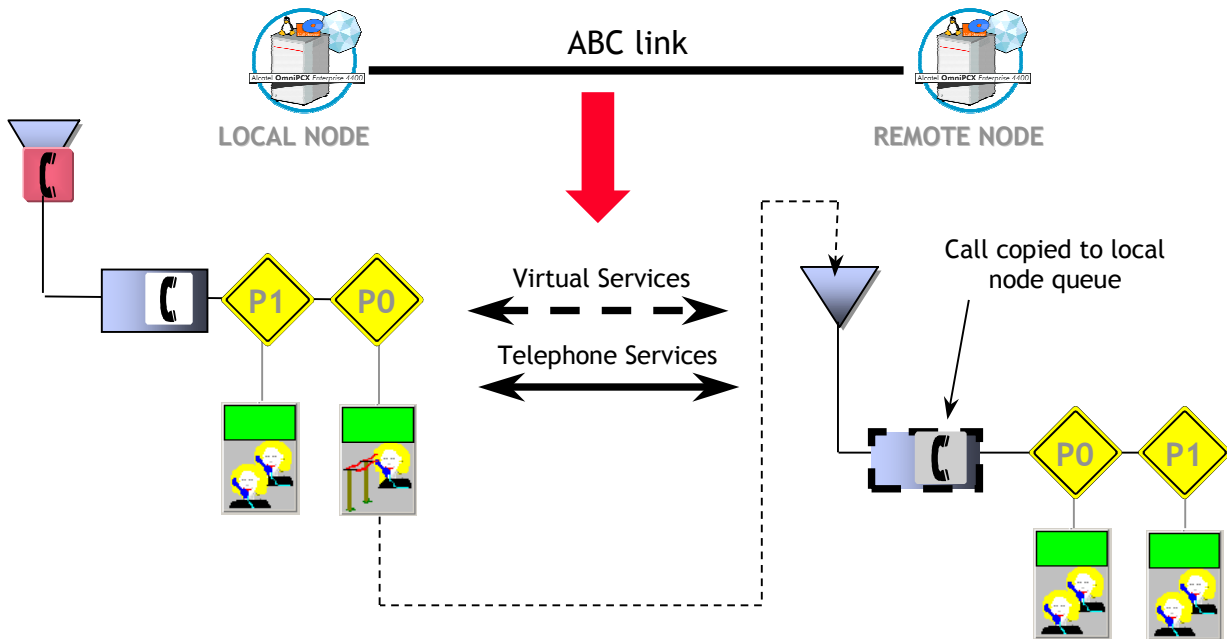
■ Display on remote node station

- Name of the Pilot requested on originating node
- Waiting Time on originating node

■ Call services:

- Transaction code
- Automatic Wrap-up timer
- Pause timer
- All these services are those of the pilot on the destination node (pilot dedicated to a virtual queue).

■ Information transfer



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In a network, the data link is for transferring information between ACD sites.
This data link is supported by the OmniPCX Enterprise virtual service.
The data link can be the signaling channel of the ABC link or an Ethernet, V.24 or PLL link.

■ ACD information transferred

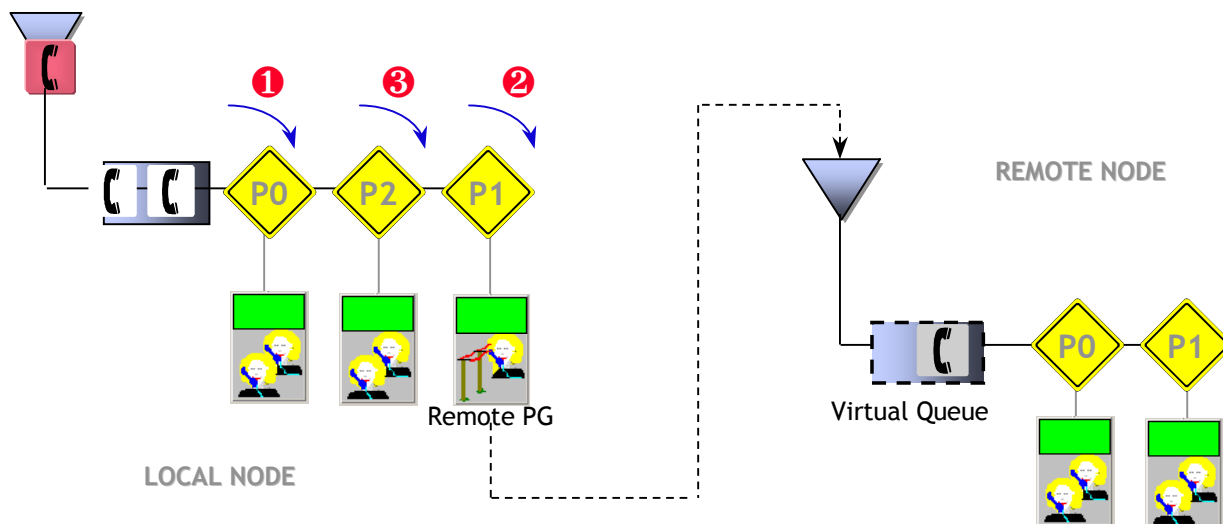
● Information transferred:

- ☐ Information on the originating pilot (number, name)
- ☐ Status of the remote pilot
- ☐ Voice Guides heard on the local node
- ☐ Real Waiting Time

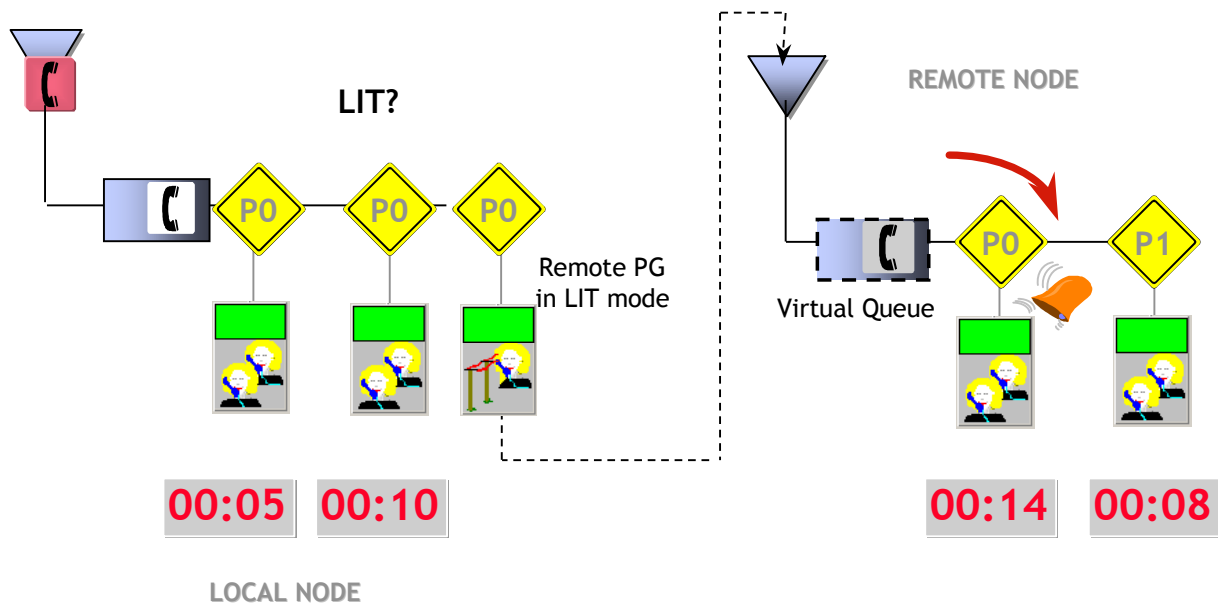
● Requests transferred:

- ☐ Resource Selection request (call Id)
- ☐ Resource Selection acknowledgment:
if an extension is free on the remote node (call Id + agent Id)
- ☐ Resource Selection rejection: if extension not free on the remote node
- ☐ Call Selection request (call Id + agent Id)
- ☐ Congestion/end of congestion request
- ☐ Block/open request
- ☐ Stop dialogue/resume dialogue request

■ Operation with different priorities for resource selection



■ Operation with same priorities for resource selection



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To choose the group, the system takes into account the LIT (longest idle time)

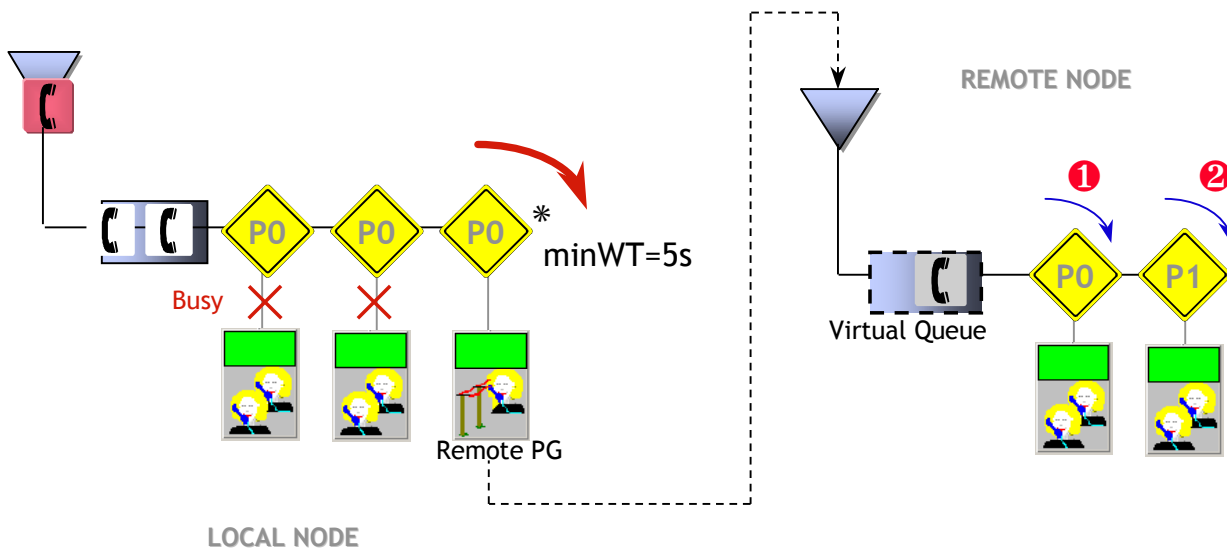
For the remote PG, you can configure distribution in cyclical mode or based on the longest time ideal.

To calculate the LIT

- . in cyclical mode: $LIT = \text{current date (at time of calculation)} - \text{date of last call handled by this remote group.}$
- . in longest time ideal mode: $LIT = LIT \text{ of an agent in the processing groups serving the local virtual queue on the remote node}$

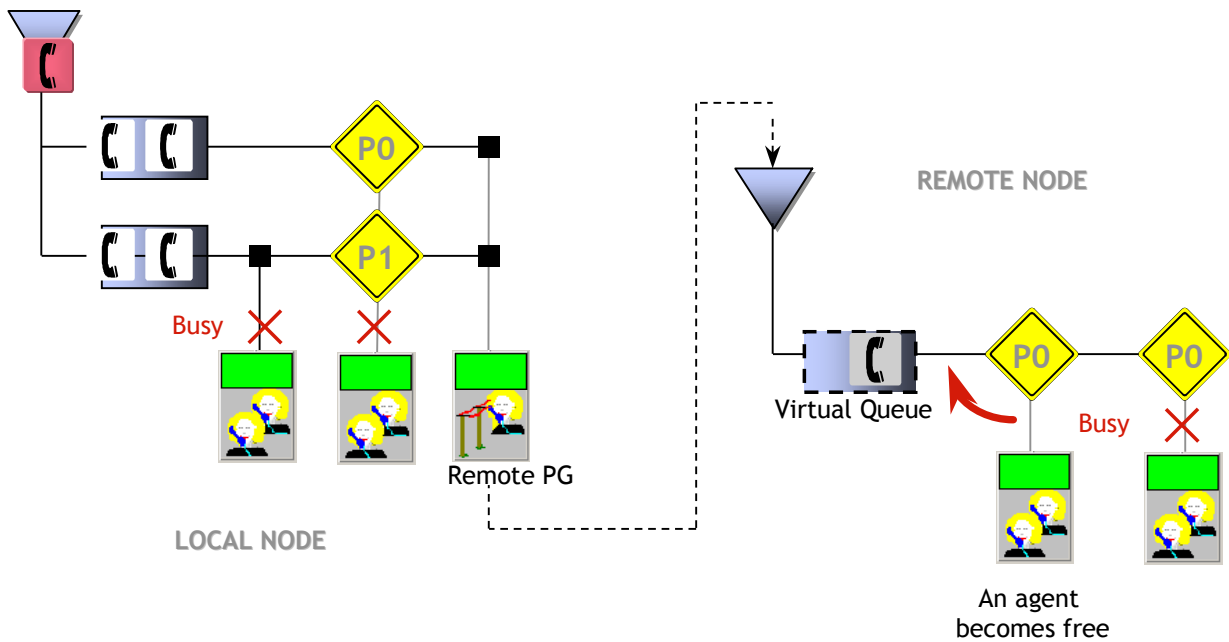
In this configuration, you can also set a handicap on the LIT for the agent PGs and remote PGs.

■ Operation with distribution threshold for resource selection



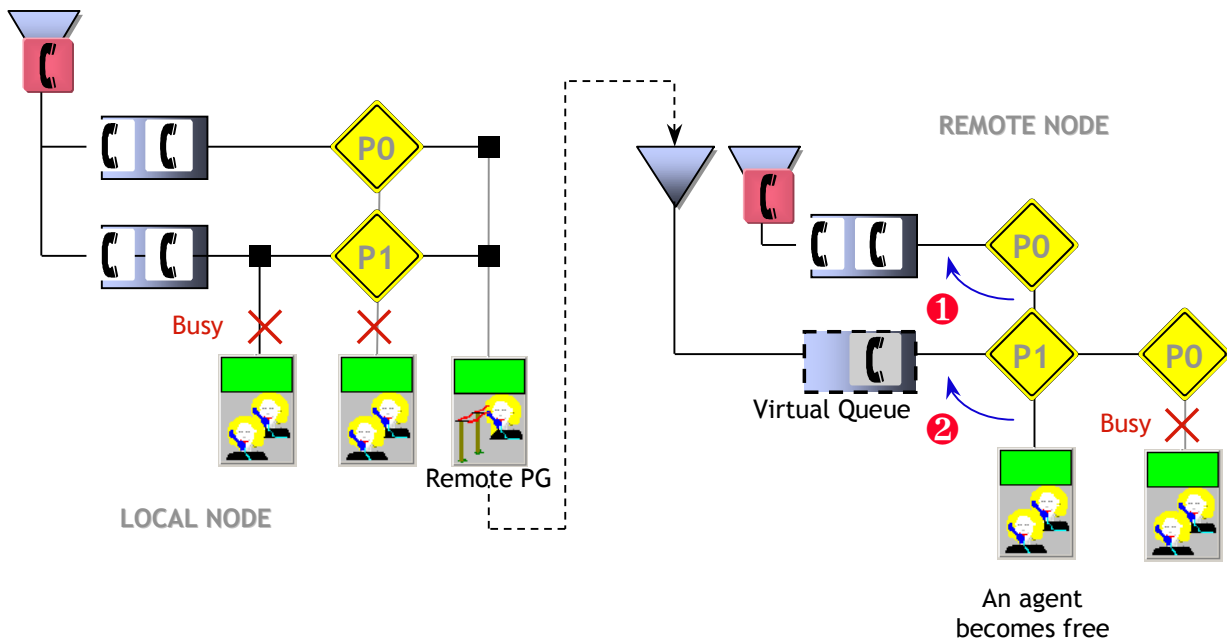
When the call has waited five seconds in the queue, it can be distributed to the remote node

■ Call selection



No call selection priority for a remote PG; call selection occurs in the remote node.
In the virtual queue, there is one copy of a call for each remote PG serving the dedicated pilot.

■ Call selection

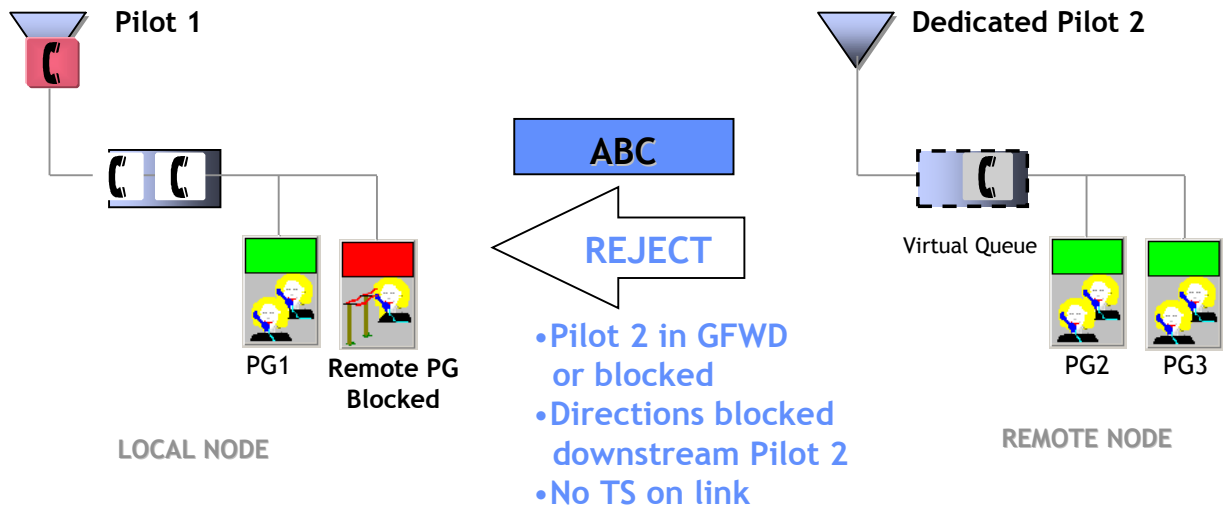


Call selection occurs in the remote node for normal queues and virtual queues

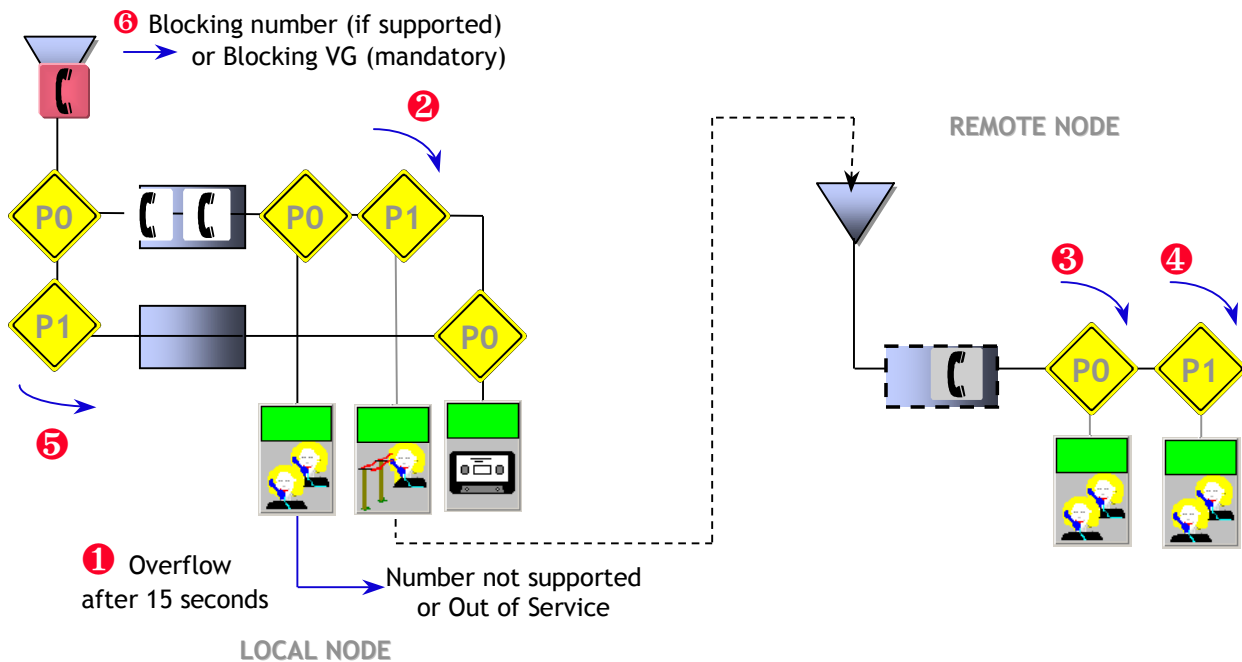
If several remote PGs are serving a dedicated pilot in the virtual queue, there will be one call per remote PG and the calls copied will be placed in the virtual queue according to their waiting time.

- The remote PG is blocked
 - If the pilot of the remote node is on general forwarding or blocked
 - If all the directions downline of the pilot on the remote node are blocked
 - If there are no more TSs available on the link

■ The remote PG is blocked



■ Overflow on ringing: number not supported or out of service



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For overflow on ringing without number or with number out of service, the system looks for the next free direction with the lowest cost:

- a resource serving the same queue
- another routing direction for the pilot
- the blocking or general forwarding number
- the blocking or general forwarding guide.

If the pilot is in general forwarding mode and is using the general forwarding rule for step 6, the call will be routed to the RVG number if supported or to the guide (mandatory).

■ Management on the remote node

● Virtual queue creation

□ Application/CCD/Queue

- Directory number:
- Name:
- Type: Virtual

● Dedicated pilot creation

□ Application/CCD/Pilot

- Routing Direction 0: "Virtual Queue Directory Number"

● Pilot rule creation

□ Application/CCD/Pilot/Pilot Rule Guide

□ Application/CCD/Pilot/Pilot Rule Direction

■ Management on the local node

- Network prefix creation
 - Translator/Prefix Plan/Create
 - Number:
 - Prefix Meaning :Network No.
 - Network number:
 - Node number:
 - Type: pilot
- Remote processing group creation
 - Application/CCD/Processing Group/Create
 - Directory number:
 - Name:
 - Type: Remote
- Distribution rule management
 - Application/CCD/Distribution Rule/Resource selection configuration

■ Maintenance

- Check that the network is up:
 - State of the T2 and T0 boards: config
 - State of the links between nodes: suproustage
- Check that the remote PG is open:
 - Under “mtcl” account: acdsup
 - CCsupervision PC: navigator use
- Dedicated Pilot:
 - pildstctx <pilot directory number>
- Remote PG:
 - pgctx <remote PG number>

In case of trouble, TSS can ask you to run these commands

- State of dialogue between a remote PG and a pilot:
 - ctxacd
- Display all dialogue contexts
 - Between nodes: tabctx
 - Between two specified nodes: tabnodectx <node N°>
 - Awaiting acknowledgment: ctxretry

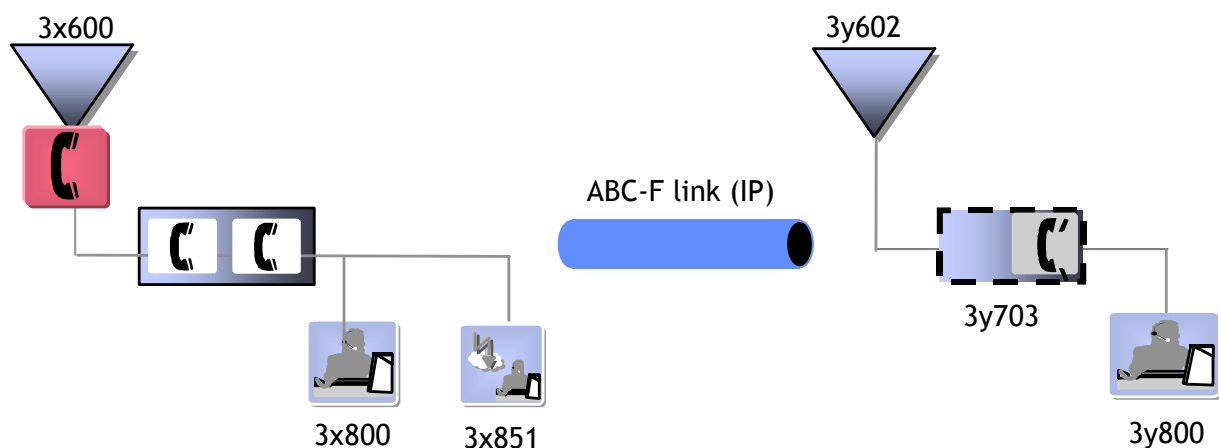
HANDS-ON EXERCISES

OBJECTIVE

- To learn how to use CCdistribution in network mutual-aid, to test the distributed mutual aid and the remote PG

MANAGEMENT

1. Manage the following configuration:



Note: x is the local node number, y is the remote node number

Note: *Keep the previous CCd matrix management, you have only to add a “dedicated pilot”, a “virtual” waiting queue and a remote PG*

2. Use several commands in order to check the ABC-F link status
 - suproutage
 - tunstat
 - ping the remote IP/X25 tunnel (172.30.Network.node)

3. Create a network prefix to call the remote dedicated pilot 3y602 to be used in the remote agent PG
4. On your node, create a REMOTE PG (3X851), declare as routing number the network number managed previously to call the remote dedicated pilot and connect it to the normal waiting queue (3X700)
5. On your node, do the right management to ensure the mutual aid when requested by the remote node. For that :
 - 5.1. Declare a dedicated pilot (3X602)
 - 5.2. Declare a virtual waiting queue (3X703)
 - 5.3. Connect the dedicated pilot to the virtual waiting queue
 - 5.4. Connect the virtual waiting queue to your agent PG (3X800)
6. Test the distributed mutual aid when:
 - 6.1. Your agent PG (3X800) and your remote PG (3X851) have different resources selection priorities . How does it work?
 - 6.2. Your agent PG (3X800) and your remote PG (3X851) have the same resources selection priorities . How does it work?
 - 6.3. Your remote PG (3X851) uses a distribution threshold (15 seconds); how does it work?
 - 6.4. How do the call services work?
 - Pilot name
 - Waiting time
 - Wrap-up timer
 - Pause timer
7. Test the distributed mutual-aid when the remote pilot is in general forwarding or blocked status. What is the remote PG state?
8. Test the distributed mutual-aid when the ABC-F link is saturated (no free time slots). What is the remote PG state?

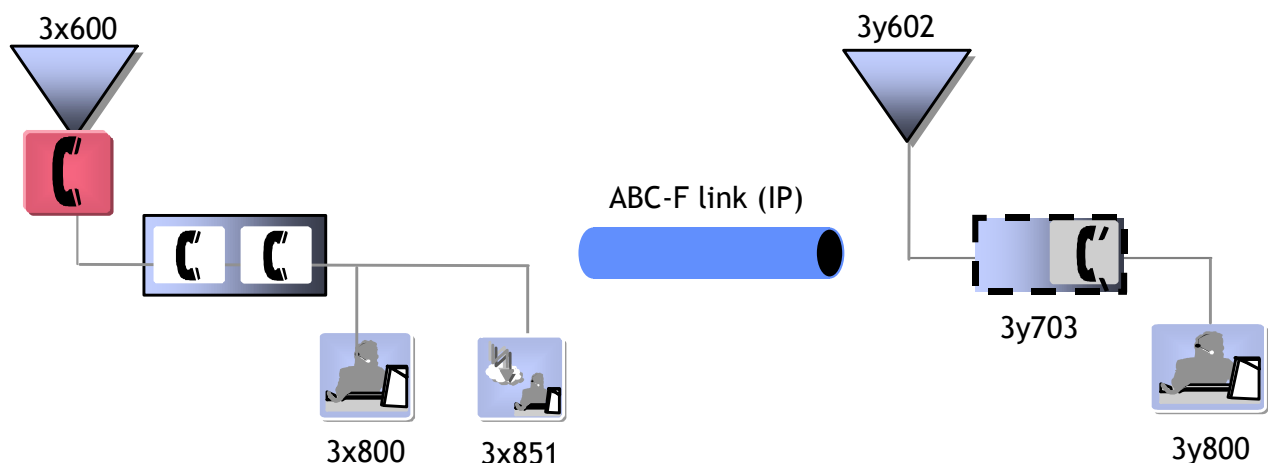
HANDS-ON EXERCISES SOLUTIONS

OBJECTIVE

- To learn how to use CCdistribution in network mutual-aid, to test the distributed mutual aid and the remote PG

MANAGEMENT

1. Manage the following configuration:



Note: x is the local node number, y is the remote node number

Note: Keep the previous CCd matrix management, you have only to add a “dedicated pilot”, a “virtual” waiting queue and a remote PG

2. Use several commands in order to check the ABC-F link status
 - suproutage
 - tunstat
 - ping the remote IP/X25 tunnel (172.30.Network.node)
3. Create a network prefix to call the remote dedicated pilot 3y602 to be used in the remote agent PG

Go to: Translator / prefix plan / create

```
Review/Modify: Prefix Plan
Node Number (reserved) : 104
Instance (reserved) : 1
Number : 35602
Prefix Meaning + Network No.
Network Number : 1
Node Number/ABC-F Trunk Group : 5
Number With Subaddress (ISDN) + NO
Type + Pilot
Identifier : 0
```

In this example: Y = remote node number = 5 (so remote pilot number = 35602)

4. On your node, create a REMOTE PG (3X851), declare as routing number the network number managed previously to call the remote dedicated pilot and connect it to the normal waiting queue (3X700)

Go to: Applications / CCd / Processing group / create

```
Review/Modify: Processing Group
Node Number (reserved) : 104
Instance (reserved) : 1
Instance (reserved) : 1
Directory Number : 34851
Name : Re_PG
Type + Remote
Manual Closure + False
Search Mode + Circular
Voice directory number : 35602
Data directory number : 35602
```

In this example:

X = local node number = 4 (so remote PG number = 34851)

Then, declare that the remote PG is reachable by the normal waiting queue

From CCs, go to: configuration / queue and associate the normal queue with the remote PG

Queue or Waiting Room Configuration

Select a queue or a waiting room

☒ Name ☐ Number

1_normal 1_34700

Type Normal queue

Change queue/waiting room name normal

Maximum waiting time 300 sec.

Maximum waiting time alert threshold 15 sec.

Traffic sampling period 5 mn.

Queuing overflow

Address 35600

Delay 25 sec.

Call Distribution

Possible PGs

1_agent

1_Re_PG

Add

Delete

Cancel OK Exit

Then **open** the remote PG direction in the Distribution rule
From CCs, go to: Call Flow mgt / call distribution

Call Distribution

Queue

1_normal Status BLOCKED Configuration ... Closing

Traffic 0 calls/mn

Processing Group

1_agent Status BLOCKED Configuration ... Closing

Traffic 0 calls/mn

Call Distribution rule

☒ Name ☐ Number

1_Rule_0 0 Active Create Save Save as Delete

Rule name: Rule_0

Calendar

Resource selection

Direction	PG	Priority	Handic.	thres.	Status	Activity rate for PG	MIT hh:mm:ss	Active Resources
<input checked="" type="checkbox"/>	1_agent	0	0	0	Blocked		×	0
<input checked="" type="checkbox"/>	1_Re_PG	0	0	0	Closed		×	×

Call Selection

Rule_0

5. On your node, do the right management to ensure the mutual aid when requested by the remote node. For that:

5.1. Declare a dedicated pilot (3X602)

From mgr, go to: Applications / CCd / Pilot / create

```
Create: Pilot
Node Number (reserved) : 1
Instance (reserved) : 1
Instance (reserved) : 1
Pilot Directory Number : 34602
Directory Name : dedicated_
Pilot Connection COS : 0
InterGuide tone Number : 2
On Hold Guide Number : 2
Transfer with priority + False
Redirection Busy Tone On DID + True
```

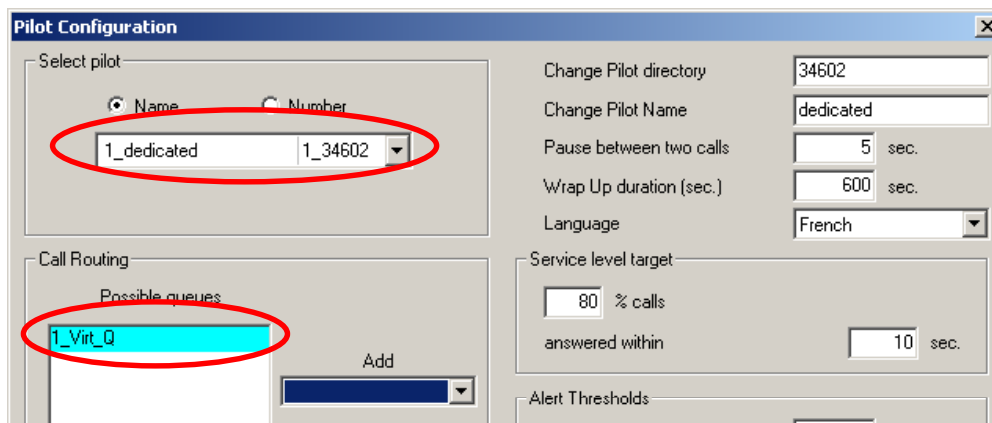
5.2. Declare a virtual waiting queue (3X703)

From mgr, go to: Applications / CCd / queue / create

```
Create: Queue
Node Number (reserved) : 1
Instance (reserved) : 1
Instance (reserved) : 1
Directory Number : 34703
Name : Virt_Q
Type + Virtual
Manual Closure + False
Distribution direction 0 : -----
Distribution direction 1 : -----
```

5.3. Connect the dedicated pilot to the virtual waiting queue

From CCs, go to: configuration / pilot and associate the dedicated pilot (34602) with the virtual waiting queue (34703)



Then create a routing rule for the dedicated pilot and open the “virtual” waiting queue routing direction in the Routing rule

From CCs, go to: Call Flow mgt / call routing

The 'Call Routing' window shows the 'Pilot rule' section with 'Name' set to '1_Rule_0' and 'Status' set to 'Active'. Below this, the 'Calendar per Pilot' section is visible, showing a table with columns: Main Direction, For Pilot, Queue, Priority, Handle, MWT, Status, Filling rate, EWT, and Traffic. The 'Main Direction' column has a checkbox checked. The 'Queue' column shows '1_Virt_Q'. The 'Status' column shows 'Inactive'.

5.4. Connect the virtual waiting queue to your agent PG (3X800)

From CCs, go to: configuration / queue and associate the virtual queue (34703) with the agent PG (34800)

The 'Queue or Waiting Room Configuration' window shows the 'Select a queue or a waiting room' section with 'Name' set to '1_34703' and 'Number' set to '1_Virt_Q'. The 'Type' is 'Virtual queue'. The 'Change queue/waiting room name' field is 'Virt_Q'. On the right, the 'Call Distribution' section shows 'Possible PGs' with '1_34800' listed.

Then open the agent PG (3X800) distribution direction in the Distribution rule

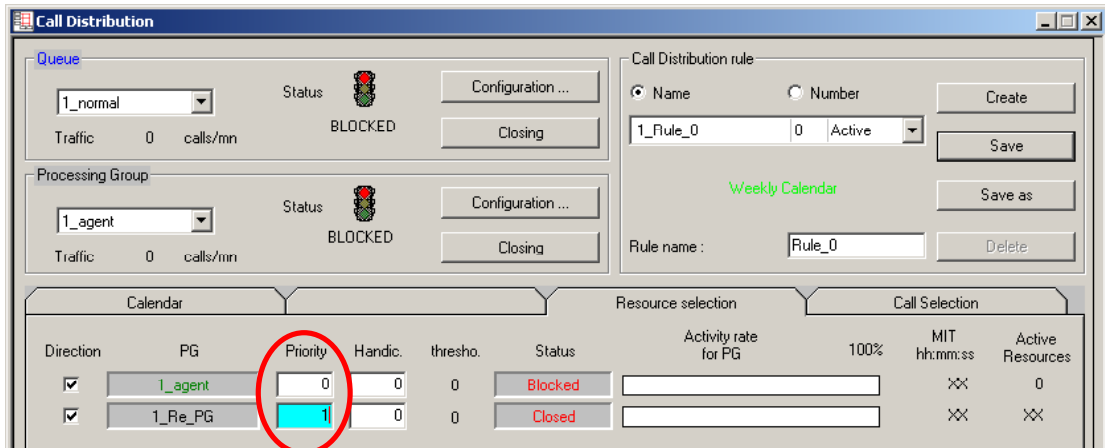
From CCs, go to: Call Flow mgt / call distribution

The 'Call Distribution' window shows the 'Queue' section with 'Name' set to '1_Virt_Q' and 'Status' set to 'BLOCKED'. The 'Processing Group' section shows 'Name' set to '1_agent' and 'Status' set to 'BLOCKED'. The 'Call Distribution rule' section shows 'Name' set to '1_Rule_0' and 'Status' set to 'Active'. Below this, the 'Calendar' section shows a table with columns: Direction, PG, Priority, Handle, thresho., Status, Activity rate for PG, MIT, and Active Resources. The 'Direction' column has a checkbox checked. The 'PG' column shows '1_agent'. The 'Priority' column shows '0'. The 'Handle' column shows '0'. The 'thresho.' column shows '0'. The 'Status' column shows 'Closed'.

6. Test the distributed mutual aid when:

- 6.1. Your agent PG (3X800) and your remote PG (3X851) have different resources selection priorities . How does it work?

From CCs, go to: Call Flow mgt / call distribution and manage different resources selection priorities



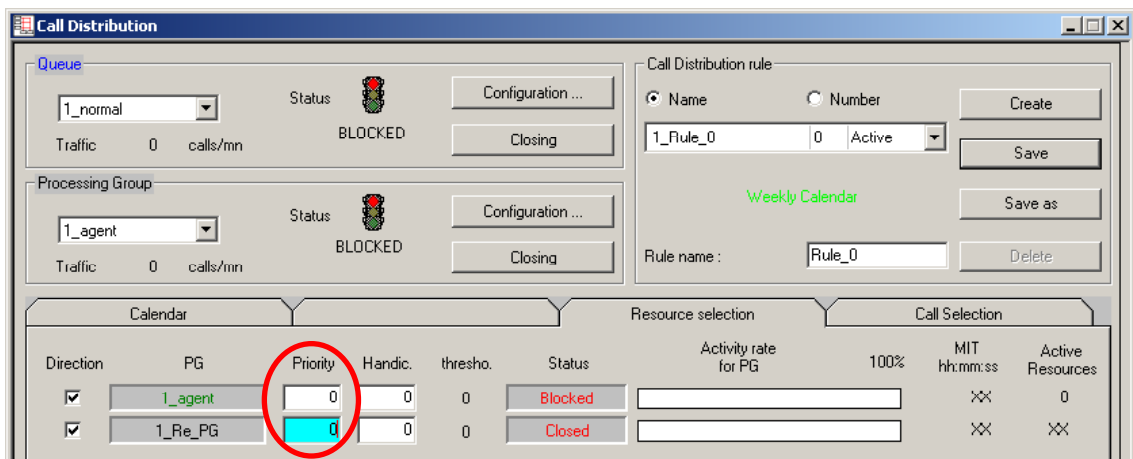
The screenshot shows the 'Call Distribution' configuration window. In the 'Resource selection' tab, there is a table with columns: Direction, PG, Priority, Handic., thresho., Status, Activity rate for PG, MIT hh:mm:ss, and Active Resources. The table has two rows: '1_agent' and '1_Re_PG'. The 'Priority' column for '1_agent' is 0 and for '1_Re_PG' is 1. The 'Status' column for '1_agent' is 'Blocked' and for '1_Re_PG' is 'Closed'. The 'Priority' values are circled in red.

Direction	PG	Priority	Handic.	thresho.	Status	Activity rate for PG	MIT hh:mm:ss	Active Resources
<input checked="" type="checkbox"/>	1_agent	0	0	0	Blocked		xx	0
<input checked="" type="checkbox"/>	1_Re_PG	1	0	0	Closed		xx	xx

In that case, the local agent PG (3X800) will be used first. In case of unavailability, the remote PG will be used

- 6.2. Your agent PG (3X800) and your remote PG (3X851) have the same resources selection priorities . How does it work?

From CCs, go to: Call Flow mgt / call distribution and manage equal resources selection priorities



The screenshot shows the 'Call Distribution' configuration window. In the 'Resource selection' tab, there is a table with columns: Direction, PG, Priority, Handic., thresho., Status, Activity rate for PG, MIT hh:mm:ss, and Active Resources. The table has two rows: '1_agent' and '1_Re_PG'. The 'Priority' column for both '1_agent' and '1_Re_PG' is 0. The 'Status' column for '1_agent' is 'Blocked' and for '1_Re_PG' is 'Closed'. The 'Priority' values are circled in red.

Direction	PG	Priority	Handic.	thresho.	Status	Activity rate for PG	MIT hh:mm:ss	Active Resources
<input checked="" type="checkbox"/>	1_agent	0	0	0	Blocked		xx	0
<input checked="" type="checkbox"/>	1_Re_PG	0	0	0	Closed		xx	xx

In that case, the system will select the PG which has the "Longest Idle Time"

6.3. Your remote PG (3X851) uses a distribution threshold (15 seconds); how does it work?

From CCs, go to: Call Flow mgt / call distribution and manage the distribution threshold for the remote PG

The screenshot shows the 'Call Distribution' configuration window. It has several sections: 'Queue', 'Processing Group', 'Call Distribution rule', 'Calendar', 'Resource selection', and 'Call Selection'. In the 'Queue' section, '1_normal' is selected with a status of 'BLOCKED'. In the 'Processing Group' section, '1_Re_PG' is selected with a status of 'BLOCKED'. In the 'Call Distribution rule' section, '1_Rule_0' is selected with a status of 'Active'. In the 'Calendar' section, 'Weekly Calendar' is selected. In the 'Resource selection' table, there is a row for '1_normal' with a 'thres.' of 15. In the 'Call Selection' section, 'Expected Waiting Time' is set to 100% and 'Traffic (calls/mn)' is 0.

This is the minimum real waiting time. Any call waiting longer than this duration can be distributed by this direction; which means that the remote PG will be able to receive a call only if it has waited in the queue 15 seconds minimum

6.4. How do the call services work?

- Pilot name: called pilot name (on originated node) is displayed on agent set
- Waiting time: waiting time on originated node is displayed on agent set
- Wrap-up timer: the used timer is managed in the dedicated pilot
- Pause timer: the used timer is managed in the dedicated pilot

7. Test the distributed mutual-aid when the remote dedicated pilot is in general forwarding or blocked status. What is the remote PG state?

Mutual aid is rejected, remote PG is Blocked; as a last resort the blockage voice guide of the called pilot will be played

8. Test the distributed mutual-aid when the ABC-F link is saturated (no free time slots). What is the remote PG state?

Mutual aid is rejected, remote PG is Blocked; as a last resort the blockage voice guide of the called pilot will be played

Alcatel-Lucent OmniTouch Contact Center Standard Edition



CCs Server



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1

OBJECTIVES

- ◆ To install CCs server
- ◆ To manage CCs connection through CCs server

■ CCs server: 2 possibilities

● Internal CCs server:

- The process "serv_ccs" is started on the OmniPCX
- 15 CCsupervision Clients simultaneously connected

● External CCs server:

- The process "serv_ccs" is stopped on the OmniPCX
- "server CCs" service is started on the PC
- 90 CCsupervision Client simultaneously connected

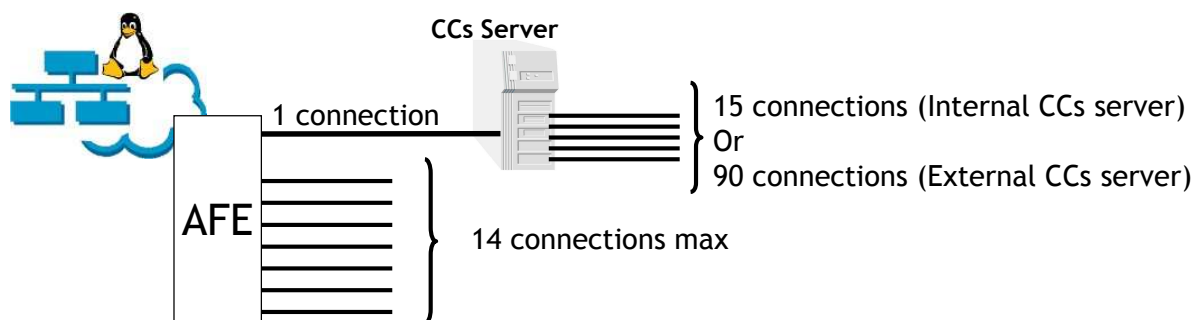
The CCs Server purpose is to increase the number of CCs connections to a OmniPCX Enterprise, up to 90, by cutting down the load of the *main_afe* process of the OmniPCX Enterprise.

This functionality is available from CCd R3.1 Release and CCs 4.3.46.1 Release.

The CCs Server is mandatory for platform with those Releases when the number of CCs is over 9 on a single PCX whatever the CCs type (mono or multi).

■ Physical limits

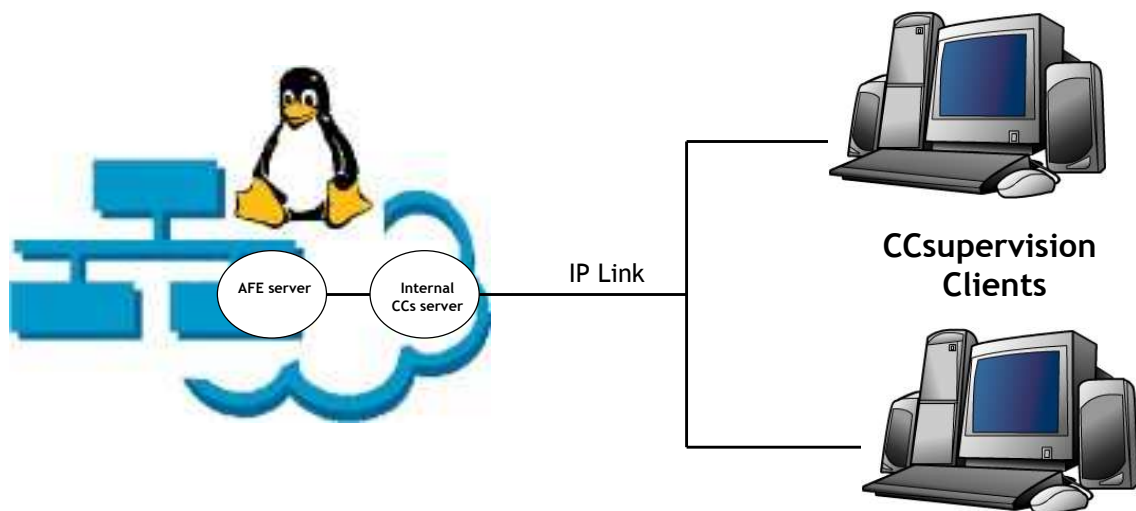
- The maximum # of connections to the AFE is 15
 - The maximum # of connections to the CCs server is 90
- From a physical limit point of view, 29 or 90 CCs max can be connected to the AFE.



* the CCs server is by default an internal one, in `usr3/afe, parameters.cfg` file, parameter `serv_CCs_on_dhs` to 1, if configuration with an external CCs server, in the `parameters.cfg`, `serv_ccs_on_dhs` to 0 and management of the CCs for a connection via server.

■ Topology: Internal CCs server

- The CCsupervision server is running on a PCX
 - Internal CCs server

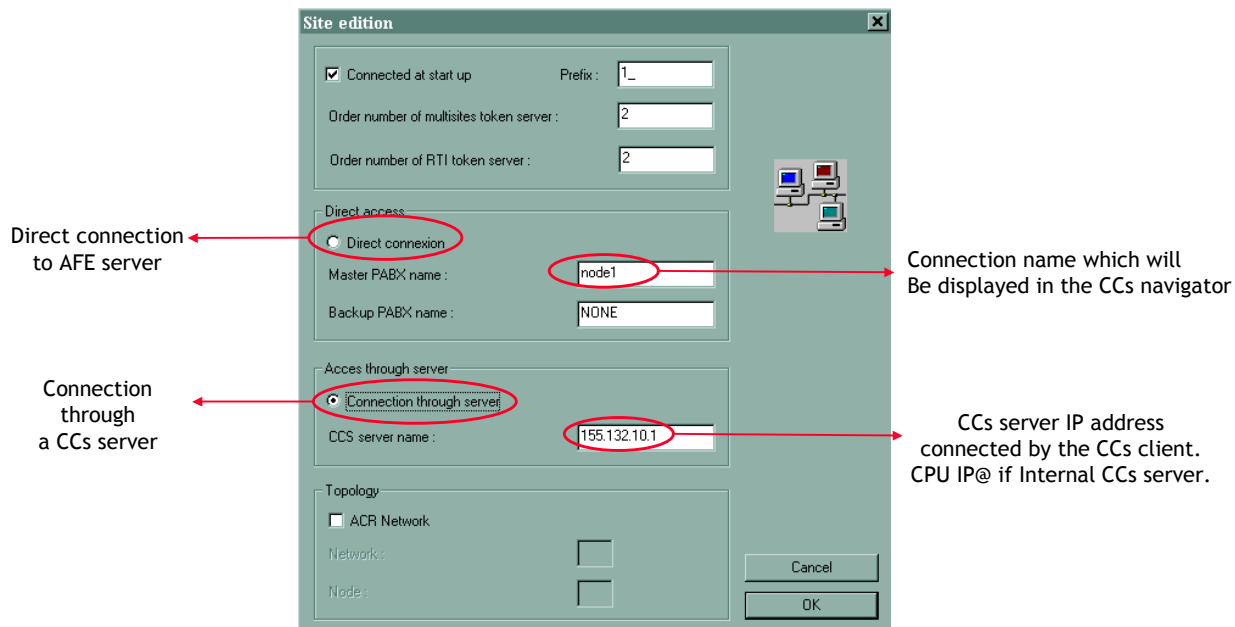


- "serv_ccs" process is started on a PCX:
 - The parameter "serv_ccs_on_dhs" is set to 1 in the parameters.cfg file (/usr3/afe)
- Using the command "ps -edf | grep serv_ccs", you display the process.

```
(4)pcx> ps -edf | grep serv_ccs
mtcl      1164      1  0 Mar17 ?        00:00:00 /DHS3bin/afe/serv_ccs pcx pcx
mtcl      1165    1164  0 Mar17 ?        00:00:03 /DHS3bin/afe/serv_ccs pcx pcx
mtcl      1166    1164  0 Mar17 ?        00:00:02 /DHS3bin/afe/serv_ccs pcx pcx
mtcl      1167    1164  0 Mar17 ?        00:00:00 /DHS3bin/afe/serv_ccs pcx pcx
mtcl      1168    1164  0 Mar17 ?        00:00:00 /DHS3bin/afe/serv_ccs pcx pcx
mtcl      20156 10352  0 14:37 ttyS0    00:00:00 grep serv_ccs
```

■ To manage the PCX using the client interface

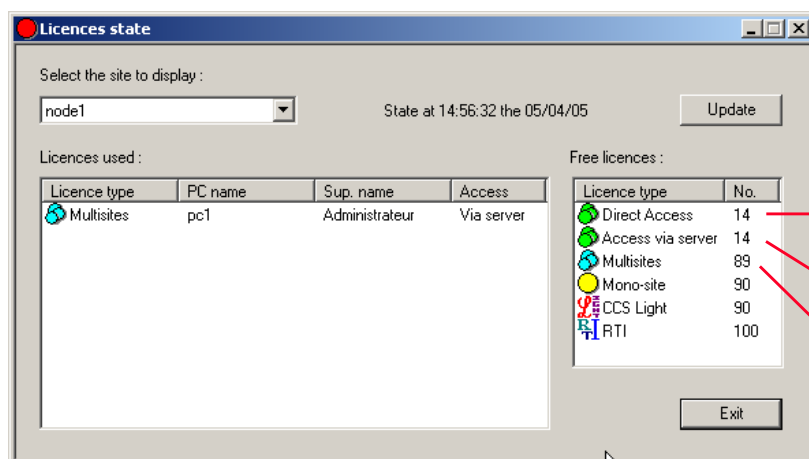
- Windows/ Customize/ Network



■ Maintenance

● Display in the CCs interface of the locks used

□ Real Time/ Licenses



1 connection to the AFE server
(Internal CCs server connected)

1 connection to the internal CCs server
(CCs client connected)

1 "multi-site" token used

■ Maintenance

- The internal CCs server is a client of the AFE server.
- "adm_acd" command enable to connect the AFE server and to visualize the connections.

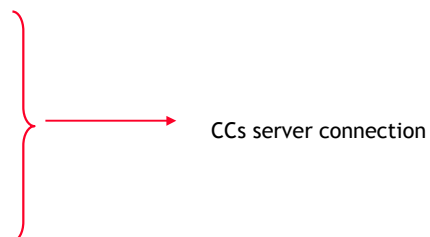
```
( )> adm_acd
```

```
option 11
```

```
Dump TERMINALS
```

```
Terminal [0]
```

```
Name      : *SERV_CCs*1666  
Type      : SCCS  
Inet add  : 155.132.10.1  
Sock fd   : 16  
State     : 4  
Last ping : 13  
Nb Packets : 0
```



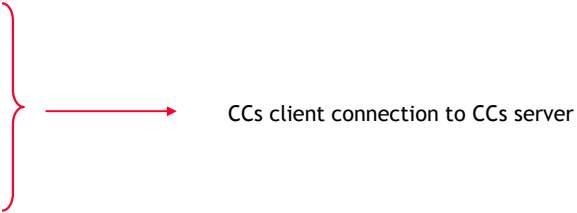
- The CCs client is not connected directly to the AFE server, so it doesn't appear in the list of the connected terminals.

■ Maintenance

- To display the CCS clients connected to the CCs server, we use "adm_acd IP@ of CCsserver -servccs":

```
( )> adm_acd -servccs  
option 10      Dump MailToTerminal
```

```
Terminal [5]  
Name       : PC1  
Type       : CCS Multi  
Inet add   : 155.132.010.031  
Sock fd    : 8  
State      : 4  
Last ping  : 12
```



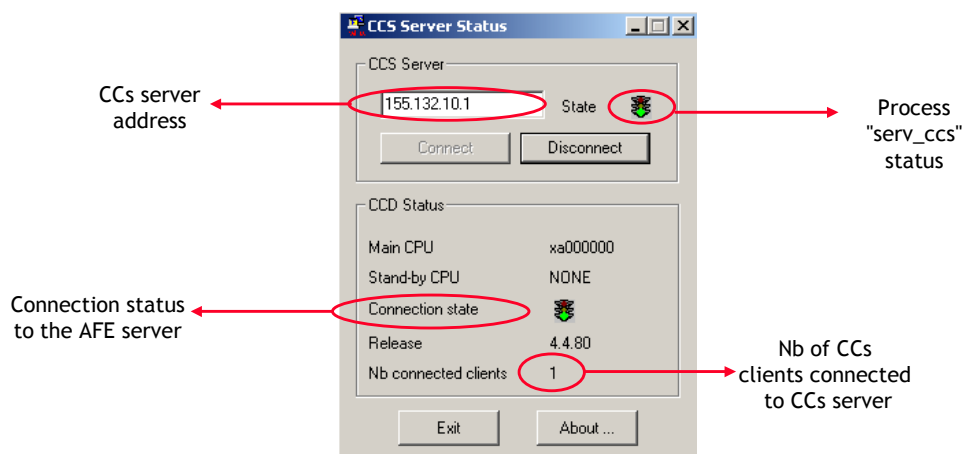
CCs client connection to CCs server

- If the CCs server IP@ is not specified, the system uses by default "localhost", that is Call server IP address.

■ Maintenance

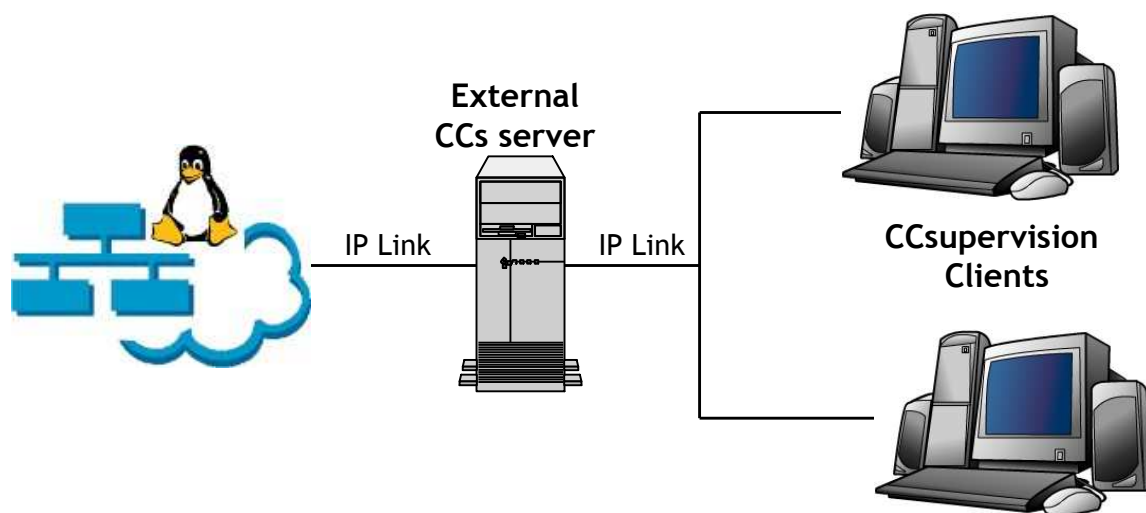
- Use of the Visualization tool (installed thanks to the external CCs software on a PC)

- Start/ Programs/ Alcatel/ A4400 CCS server/ Server status tool



■ Topology: External CCs server

- CCsupervision server is running on a PC
 - External CCs server
- One CCs server can be connected to only one PCX



■ External CCs server

- Minimum material required for the CCs server PC
 - CPU: Pentium/Celeron 400 MHz
 - RAM: 64 MO
 - Operating system: Windows 2000 server, Windows 2000 pro, Windows XP pro
 - Note: for hardware & software requirements, please refer to the “installation guide” document provided with the “CCs server” software
- This feature is available since the release R3.1 of the CCd and the CCs 4.3.46.1
- The CCs server is mandatory for these releases when the CCs connections numbers to the PCX is greater than 9 (whatever the CCs type, mono-site or multi-site)

- The process "serv_ccs" need to be stopped on the PCX:
 - The parameter "serv_ccs_on_dhs" must be set to 0 in the parameters.cfg file (/usr3/afe)
- After stopping the process, using the command "ps -edf | grep serv_ccs", the "serv_ccs" process isn't displayed

```
{4}pcx> ps -edf | grep servccs  
mtcl      20576 10352  0 15:16 ttyS0      00:00:00 grep servccs
```

■ CCsupervision server installation

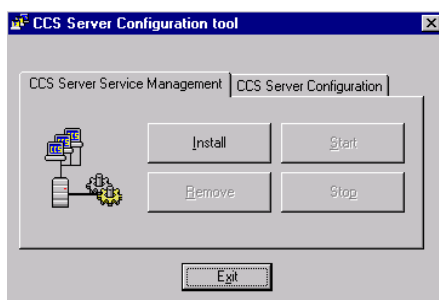
● Software installation

□ CD-ROM: setup.exe

- Enter the name or the IP address of the main DHS3 (AFE server)

□ Install the CCsupervision server as a Windows 2000 or Windows XP service

- Start/Programs/Alcatel/ A4400 CCS Server/ Service installation



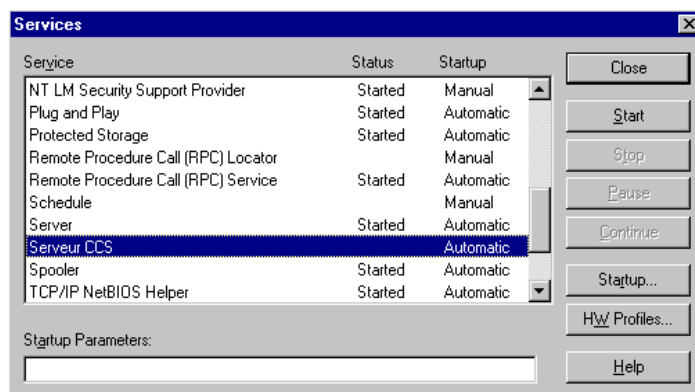
Administrator rights are required for installation

■ CCsupervision server installation

● Software configuration

□ Check if the service is installed

- Start/ Settings/ Control Panel
 - ◆ Administrative tools/ Services



■ To stop the "serv_ccs" process on the PCX

● Modify the parameters.cfg file on the PCX

- Go under usr3/afe directory

()> cd /usr3/afe

- Modification of the parameter

()> vi parameters.cfg

serv_ccs_on_dhs

1 0


- Restart the MAIN_AFE process to take into account the modification

()> dhs3_init -R MAIN_AFE

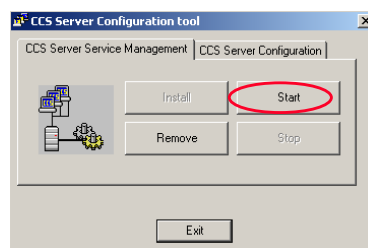
■ Each time the AFE server restarts, the content of the parameters.cfg file is read.

■ In our case, the "serv_ccs" process won't be started

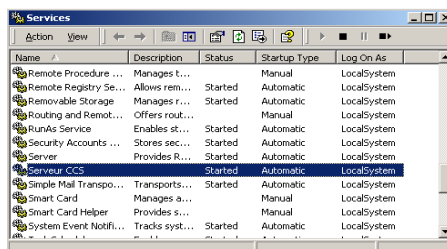
■ That enable the external CCs server to connect to the AFE server

● Start "CCs server" service

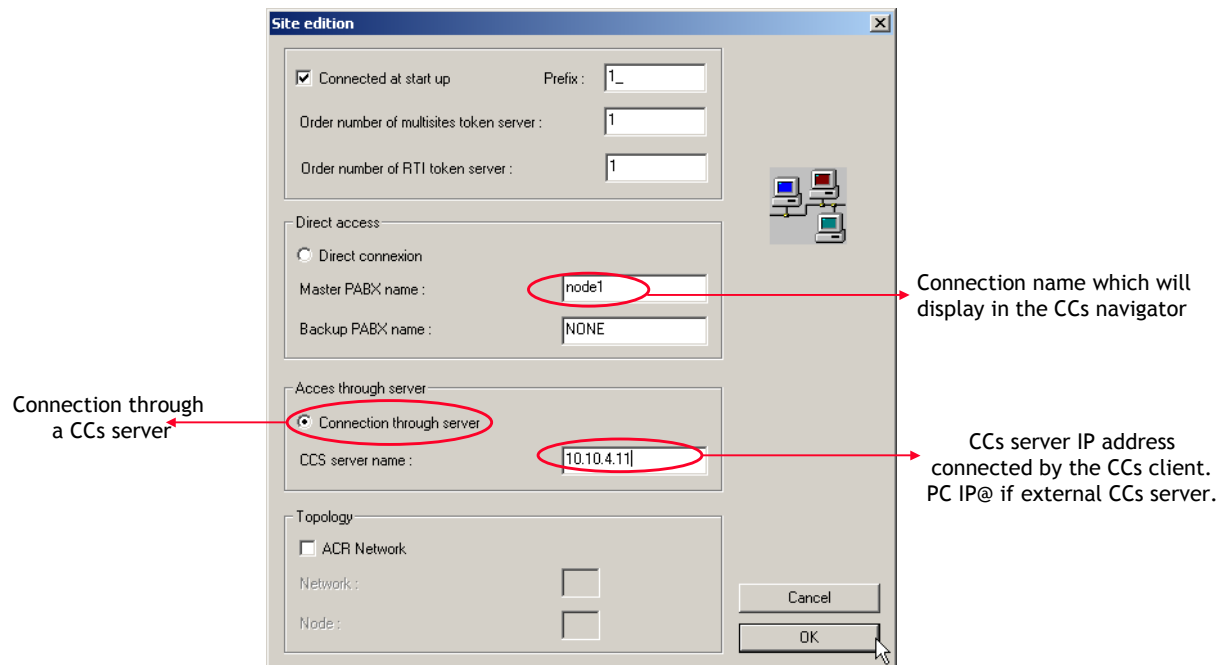
- Start/ Programs/ Alcatel/ A4400 CCS server/ Service installation



- "CCs server" must be started



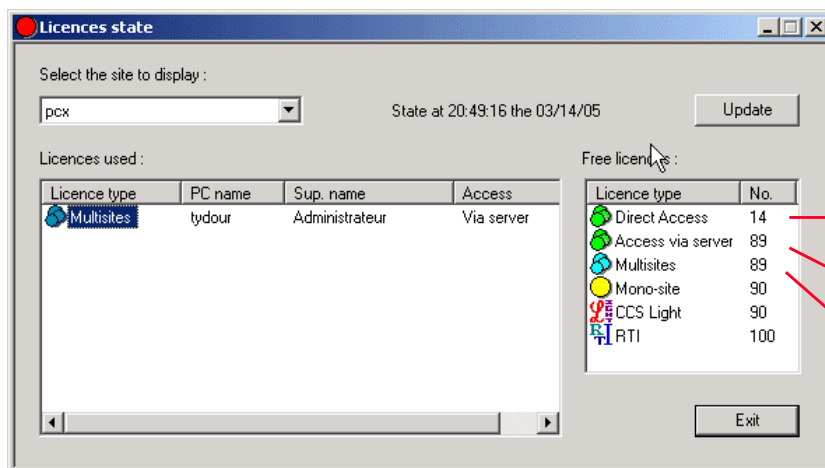
- To manage the PCX using the client interface
 - Windows/ Customize/ Network



■ Maintenance

- Display in the CCs interface of the locks used

- Real Time/ Licenses



1 connection to the AFE server
(External CCs server connected)

connection to external CCs server
(CCs client connected)

1 "multi-site" token used

■ Maintenance

- The external CCs server is a client of the AFE server.
- The AFE server can receive only one CCs server.
 - If the service (external CCs server) is started and the process (internal CCs server) isn't stopped, the connection of the external CCs server is rejected by the AFE server.
- The "adm_acd" command enable to connect to the AFE server and to visualize this connection refuse:

```
16h19:48 Error: AFE_MAIL_TX 1 Already checked CCS SERVER
16h19:48 Deconnection d'un client: 62
16h19:49 terminal disconnected: 63
```

■ Maintenance

- The "adm_acd" command enable also to visualize the connections to the AFE server

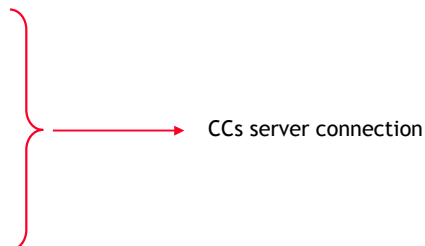
```
( )> adm_acd
```

```
option 11
```

```
Dump TERMINALS
```

```
Terminal [0]
```

```
Name      : *SERV_CCS*1666  
Type      : SCCS  
Inet add  : 10.10.4.11  
Sock fd   : 16  
State     : 4  
Last ping : 13  
Nb Packets : 0
```

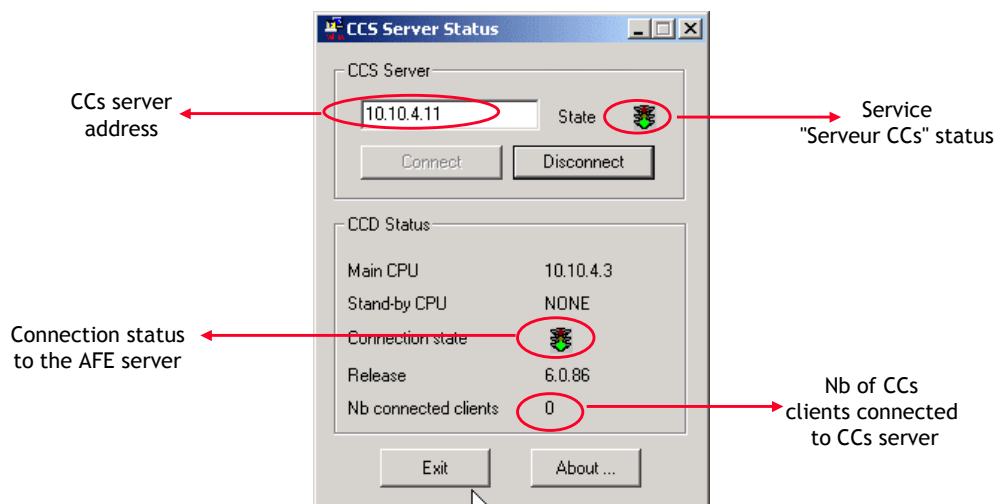


- To display the CCs clients connected to CCs server, "adm_acd IP@ of CCs server -servccs" command followed by the option 10 can be used.

■ Maintenance

● Status tool of the CCs server

- Start/ Programs/ Alcatel/ A4400 CCS server/ Server status tool



■ Log files

- /programs files/Alcatel/Alcatel OmniPCX 4400 CCsupervision Server/log
 - servccsYYMMDD.log

■ Log files example:

- servccs031121.log

```
15h32:38 Demarrage CCs Server 5.1.6 ...
15h58:47 Demarrage CCs Server 5.1.6 ...
16h00:43 terminal connected: 0 IHM

16h00:43 IHM Administrator connected: 0
16h00:52 terminal disconnected: 0
16h20:06 Demarrage CCs Server 5.1.6 ...
```


HANDS-ON EXERCISES

OBJECTIVE

- To learn how to set up the CCsupervision server

MANAGEMENT

1. Set up a direct connection between the AFE process and the CCs client
Check the licenses used (Real time / Licenses)
2. Check that the internal CCs Server is running.
Set up a connection through the internal CCs server
Check the licenses used (Real time / Licenses)
Check the clients which are connected to the AFE
Check the CCs clients which are connected to the internal CCs server
3. Set up a connection through the external CCs server :
 - Stop the internal CCs server by modifying the "parameters.cfg" file
 - Restart the "MAIN_AFE" process
 - Install the CCs server software on the PC
 - Run "set-up.exe" file and enter the Call server IP @
 - Install the "server CCs" service on the PC
 - Start the "server CCs" service on the PC
 - Declare the connection through the external CCs severCheck the licenses used (Real time / Licenses)
Check the clients which are connected to the AFE
Check the CCs clients which are connected to the external CCs server
By using the CCs server "status tool", display :
 - The connection status to the AFE
 - The "server CCs" service status
 - The number of CCs clients connected to the CCs server

4. Check the Log file

Where is it stored?

What is it used for?

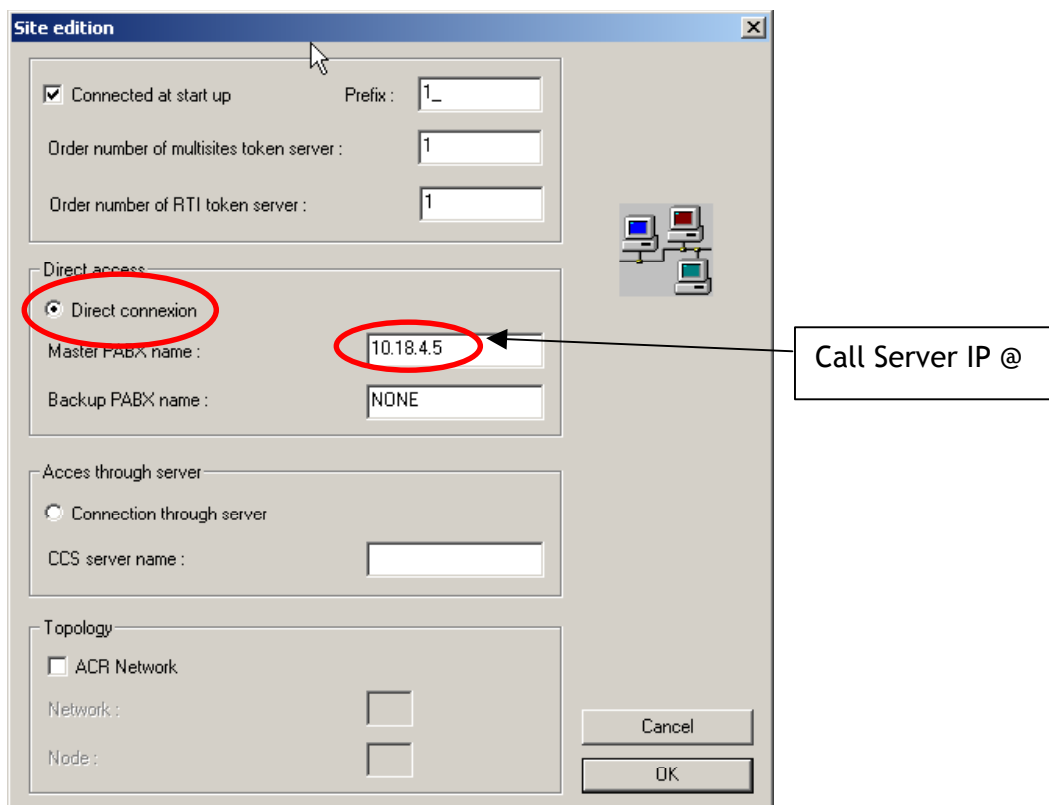
HANDS-ON EXERCISES SOLUTIONS

OBJECTIVE

- To learn how to set up the CCsupervision server

MANAGEMENT

1. Set up a direct connection between the AFE process and the CCs client
Go to: Window / Customize / "Network" tab and declare a DIRECT connection

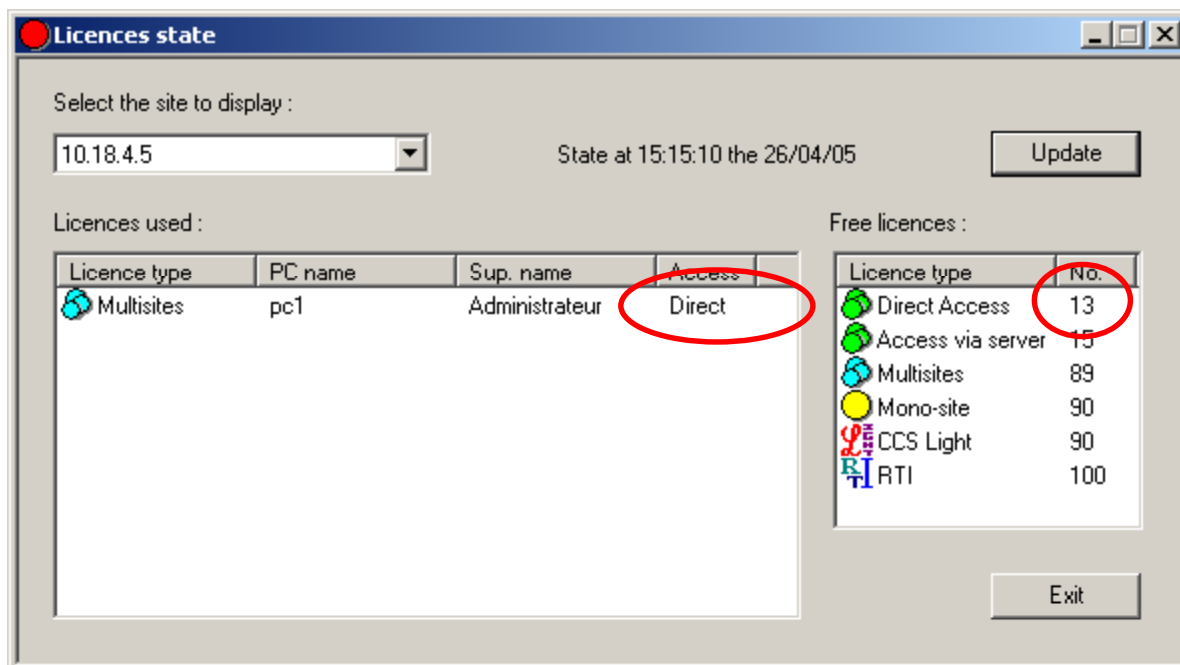


The screenshot shows the 'Site edition' dialog box with the following settings:

- ☒ Connected at start up
- Prefix : 1_
- Order number of multisites token server : 1
- Order number of RTI token server : 1
- Direct access:
 - ☒ Direct connexion
 - Master PABX name : 10.18.4.5
 - Backup PABX name : NONE
- Access through server:
 - ☐ Connection through server
 - CCS server name :
- Topology:
 - ☐ ACR Network
 - Network :
 - Node :

A red circle highlights the 'Direct connexion' radio button. Another red circle highlights the '10.18.4.5' text field, with an arrow pointing to it from a box labeled 'Call Server IP @'.

Check the licenses used: From CCs, go to Real time / Licenses



2. Check that the internal CCs Server is running.

Use the “ps -edf” command in order to display the active processes

```
(4)pcx> ps -edf | grep serv_ccs
mtcl      1164      1  0 Mar17 ?        00:00:00 /DHS3bin/afe/serv_ccs pcx pcx
mtcl      1165    1164  0 Mar17 ?        00:00:03 /DHS3bin/afe/serv_ccs pcx pcx
mtcl      1166    1164  0 Mar17 ?        00:00:02 /DHS3bin/afe/serv_ccs pcx pcx
mtcl      1167    1164  0 Mar17 ?        00:00:00 /DHS3bin/afe/serv_ccs pcx pcx
mtcl      1168    1164  0 Mar17 ?        00:00:00 /DHS3bin/afe/serv_ccs pcx pcx
mtcl      20156 10352  0 14:37 ttyS0    00:00:00 grep serv_ccs
```

Set up a connection through the internal CCs server

Go to: Window / Customise / “Network” tab and declare a connection through a server (IP @ of the server will be the Call Server IP @)

Site edition

☒ Connected at start up Prefix : 1_

Order number of multisites token server : 1

Order number of RTI token server : 1

Direct access

☐ Direct connexion

Master PABX name : Node1

Backup PABX name : NONE

Access through server

☒ Connection through server

CCS server name : 10.18.4.5

Topology

☐ ACR Network

Network :

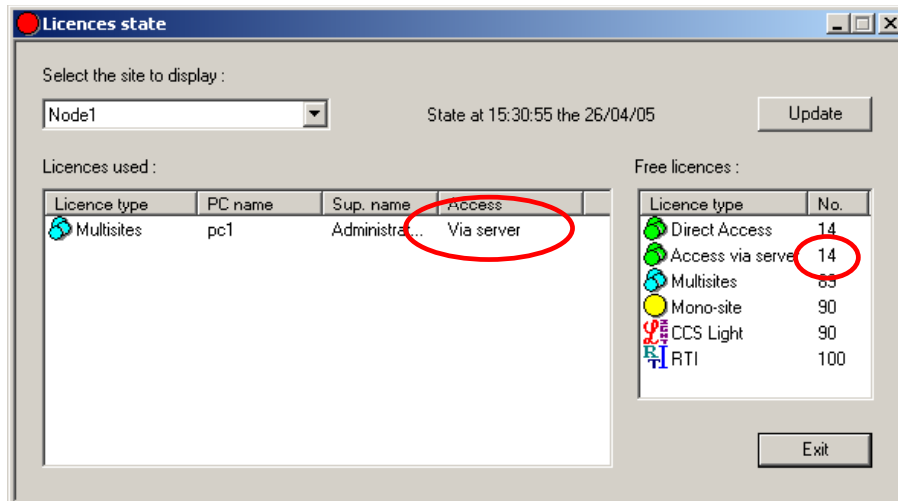
Node :

Cancel

OK

Call Server IP @

Check the licenses used: From CCs, go to Real time / Licenses



Check the clients which are connected to the AFE by using the command “adm_ACD” (option 11)

```
adm_ACD
11
Terminal [0]
  Name      : *SERV_CCS*1193
  Type      : SCCS
  Inet add   : 010.018.004.005
  Sock fd    : 16
  State      : 4
  Last ping  : 13
  Nb Packets : 0
```

The CCs client doesn't appear because it is connected to the internal CCs server (not to the AFE)

Check the CCs clients which are connected to the internal CCs server by using the command “adm_ACD -servccs” (option 10)

```
adm_ACD -servccs
10
Terminal [1]
  Name      : PC1
  Type      : CCS Multi
  Inet add   : 010.018.004.013
  Sock fd    : 16
  State      : 4
  Last ping  : 13
  Nb Packets : 0
```

3. Set up a connection through the external CCs server:

Stop the internal CCs server by modifying the “parameters.cfg” file

Go to /usr3/afe, edit “parameters.cfg” file and modify the following parameters:

- **serv_ccs_on_dhs 0**

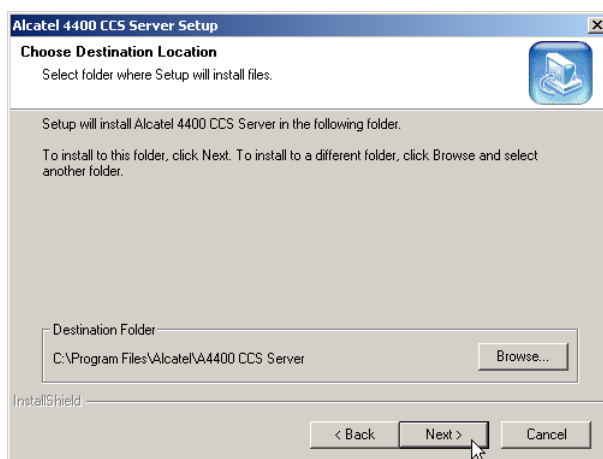
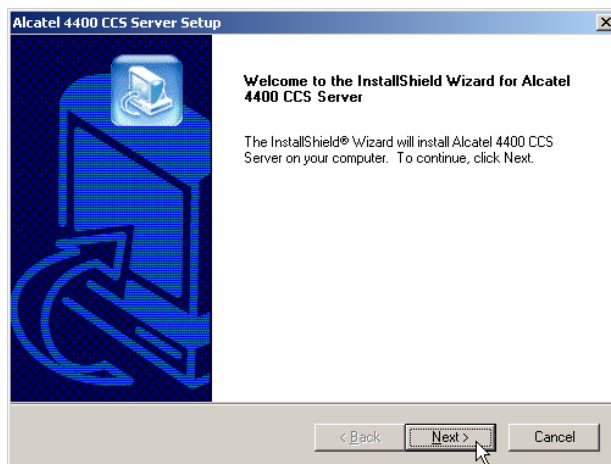
This management can be done by using “vi” editor or by using ftp

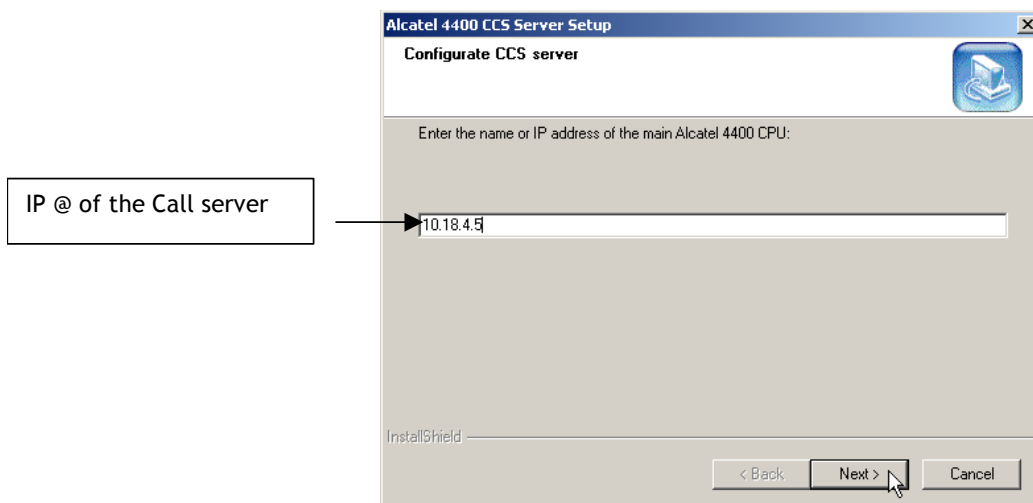
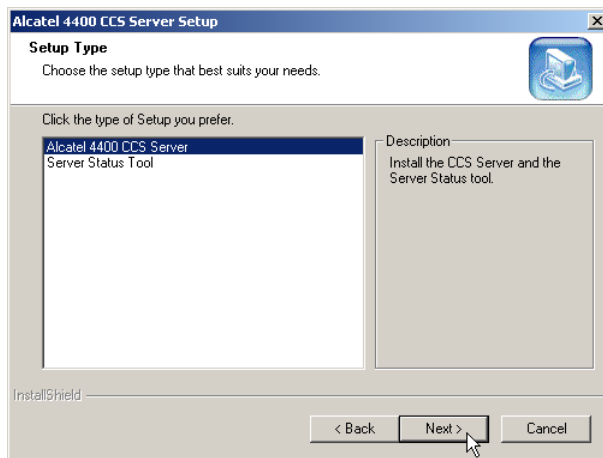
Restart the “MAIN_AFE” process

- **dhs3_init -R MAIN_AFE**

Install the CCs server software on the PC

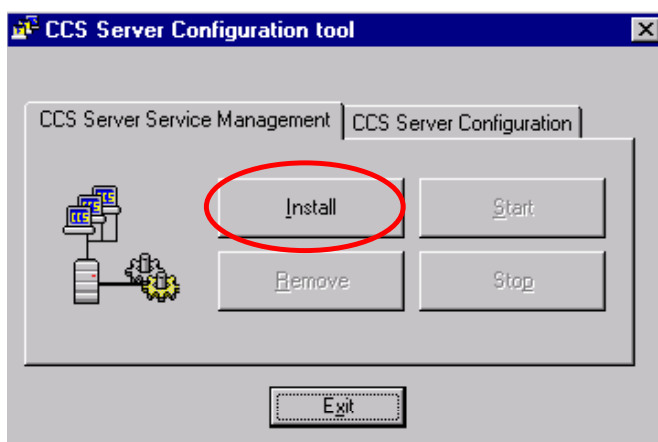
- **Run “set-up.exe” file and enter the Call server IP @**





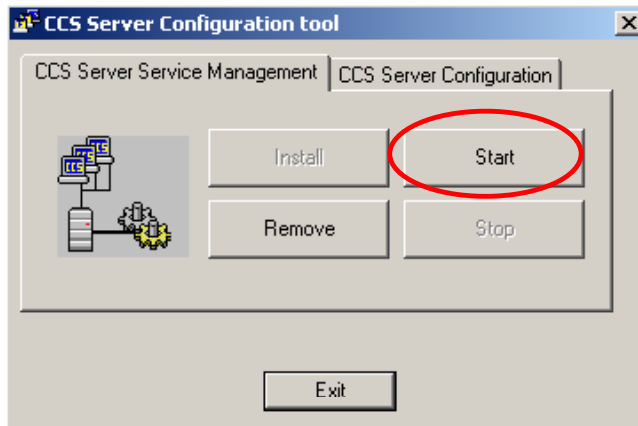
- Install the “server CCs” service on the PC

Go to: Start / programs / Alcatel / A4400 CCs server / service Installation



- Start the “server CCs” service on the PC

Go to: Start / programs / Alcatel / A4400 CCS server / service Installation

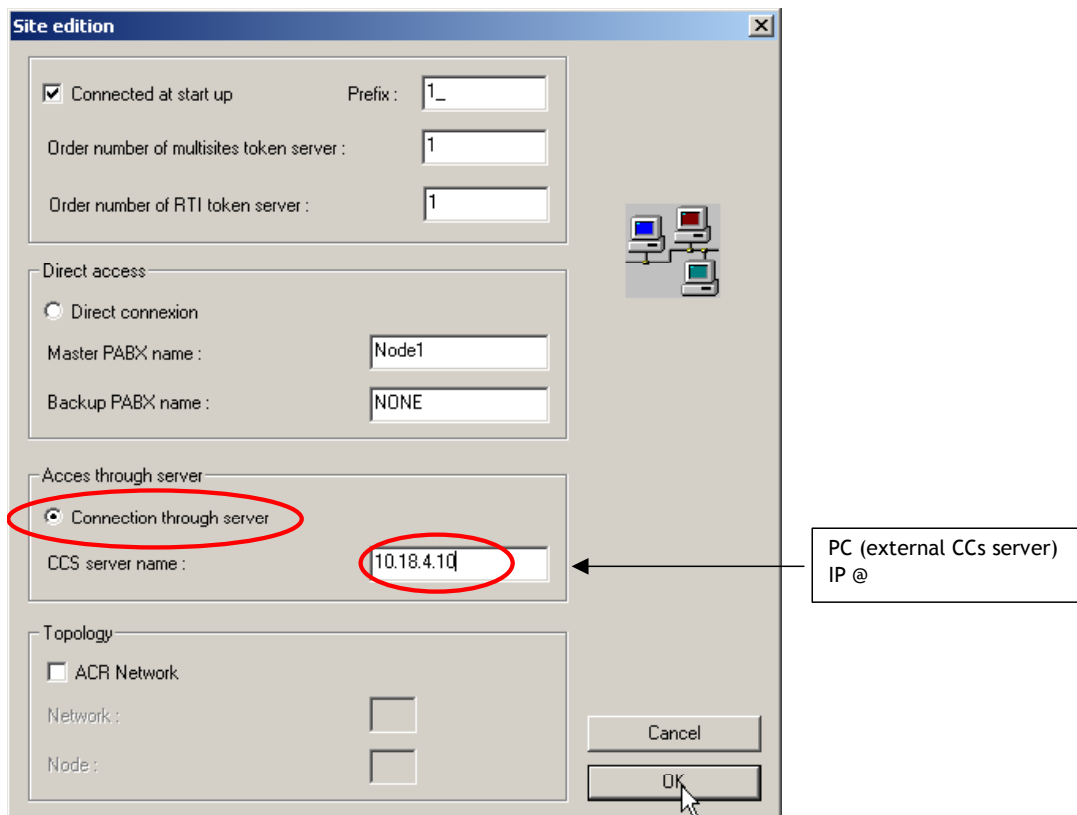


You can check that the service is started (start / settings / control panel)

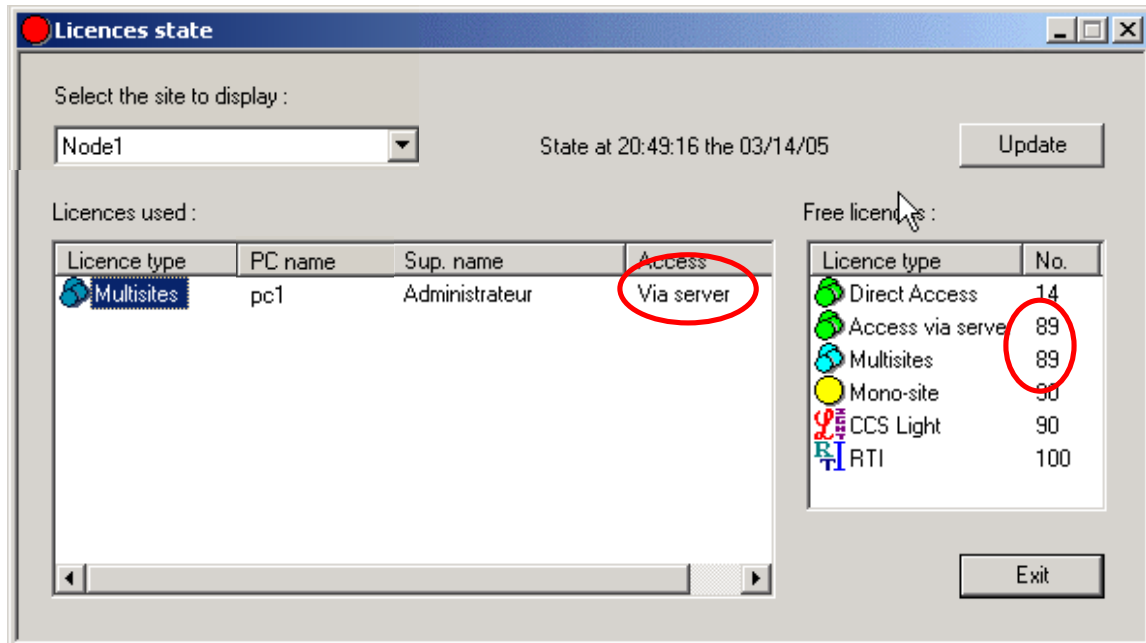


- **Declare the connection through the external CCs sever**

Go to: Window / Customise / "Network" tab and declare a connection through a server (Ip @ of the server will be the PC IP @)



Check the licenses used: From CCs, go to Real time / Licenses



Check the clients which are connected to the AFE by using the command “adm_ACD” (option 11)

```
adm_acd
11
Terminal [0]
Name      : *SERV_CCS*1193
Type      : SCCS
Inet add  : 010.018.004.010
Sock fd   : 16
State     : 4
Last ping : 13
Nb Packets : 0
```

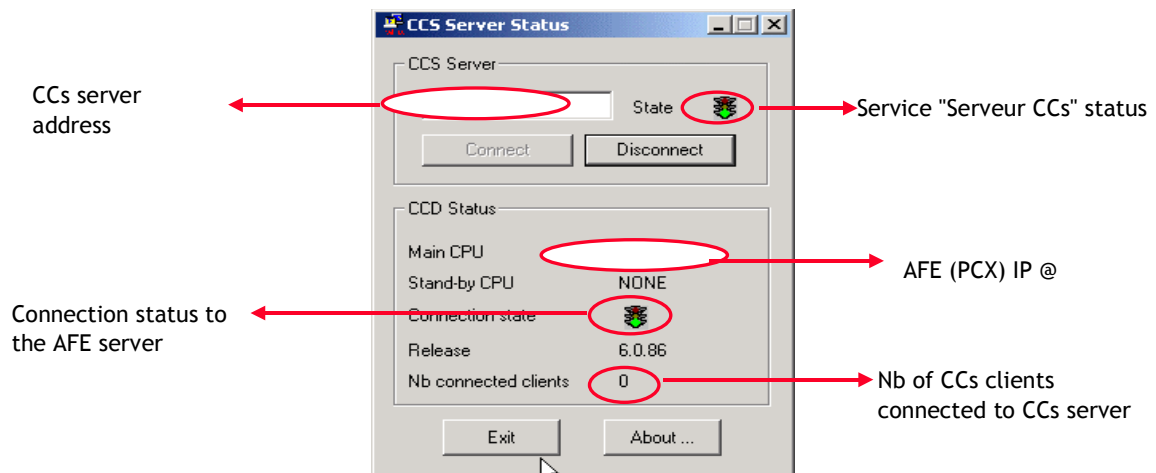
The external CCs server appears because it is connected to the AFE

The CCs client doesn't appear because it is connected to the external CCs server (not to the AFE)

Check the CCs clients which are connected to the external CCs server by using the command “adm_ACD IP @ of CCs server -servccs” (option 10)

By using the CCs server “status tool”, display:

- The connection status to the AFE
- The “server CCs” service status
- The number of CCs clients connected to the CCs server



4. Check a Log file

Where is it stored?

C:\Program Files\Alcatel\A4400 CCS Server\log

What is it used for?

Historic of the CCs server connection / disconnection

Alcatel-Lucent OmniTouch Contact Center Standard Edition



Contact Center Agent Installation Procedure



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OBJECTIVES

- ◆ To install the OTS server
- ◆ To install the ACAPI server
- ◆ To install the PC Agent server
- ◆ To install the OTS Manager client tool
- ◆ To install the PC Agent Manager tool
- ◆ To install the CCa client

■ Overview

■ Servers installation:

- ACAPI server
- OTS server
- PC Agent server

■ Clients installation

- OTS manager client
- PC agent server manager client
- CCa client
 - Local installation
 - Installation through a web page (web server)

■ Maintenance

■ Alcatel-Lucent CCa stands for Contact Center Agent

- Desktop application for CCD agents

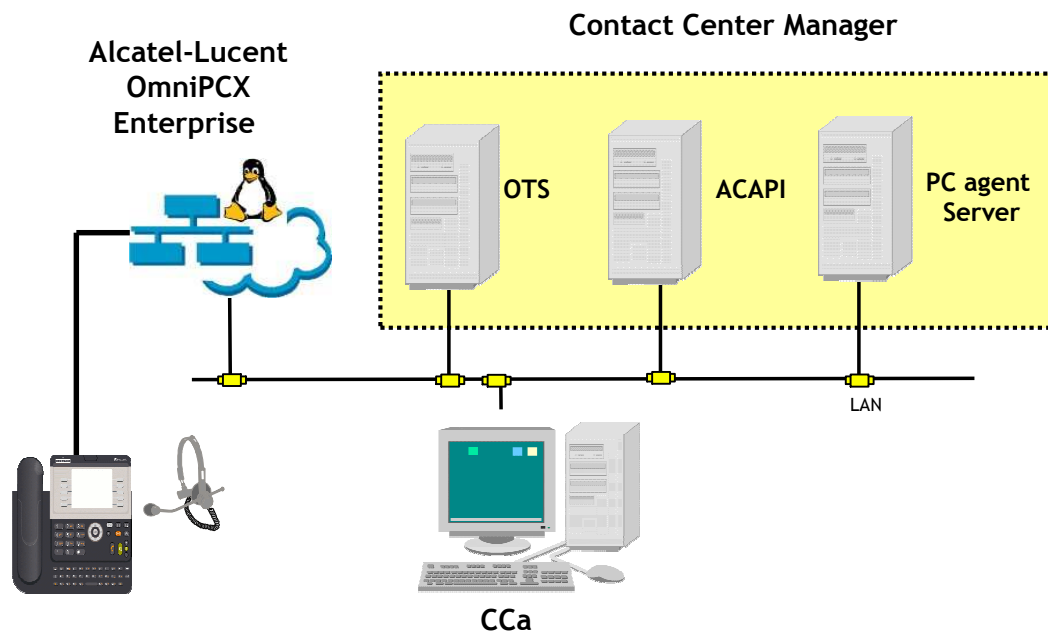
■ Alcatel-Lucent CCa can be used as

- Front-end application
 - Full telephony ,messaging, directory services ..
- Minimized on the desktop screen
 - In the task bar of windows
- Back end application
 - Integrated with others third party CRM applications
 - Software development kit

■ Definition

- CCagent is an application which allows you to control and supervise a phone extension from your PC machine. This application gives a link between computer and telephone thanks to the CSTA Protocol.
- This application allows:
 - Agents to not have to use their extension for classical ACD features
 - To link the Agent Phone Logon to the Computer Login and gives screen pop-up in case of incoming calls.

■ CCa architecture



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Alcatel-Lucent ACAPI:

Content the ACAPI server which allow you to get some information from the PBX.

Alcatel-Lucent OTS (also called TSA):

Content the OTS (Open Telephony Server) which carry out the link between the Alcatel-Lucent OmniTouch CCagent Client and the Alcatel OmniPCX Enterprise.

Alcatel-Lucent PC Agent Server:

Content the SPC Agent (PC Agent Server) which carry out the link between the Alcatel-Lucent OmniTouch CCagent Client and the AFE server.

■ CCA server minimum configuration required:

- Pentium III PC type 800 MHz
- 64 (50 clients) to 128 (2000 clients) Mb of RAM
- 200 (50 clients) to 800 (2000 clients) Mb available on Hard disk drive
- CD-ROM drive
- For the OS, see the “OmniTouch versions compatibility” document

- Note:
 - This configuration will need to be adapted according to the number of users
 - You must have Administrator rights to be able to install the servers
 - PCX hostname must be specified in the DNS or in the PC host file

■ CCA management in the PCX database

- Agents that will use CCagent application must be declared in the PCX database
- Create “ACD authorized phone set” and Agent Phone set
 - / Users / create
 - ACD station: ACD authorized phone set or Agent or supervisor
- Enable CCA capabilities on the supervisor or agent sets
 - / Users / Review/modify
 - CCA operations: True
- Validate the system parameter to get information in the fault manager application
 - / System / Review/modify
 - 47XX directory - 4400 synchro: TRUE

Some features will be not available if the following management is not done..

Suffixes

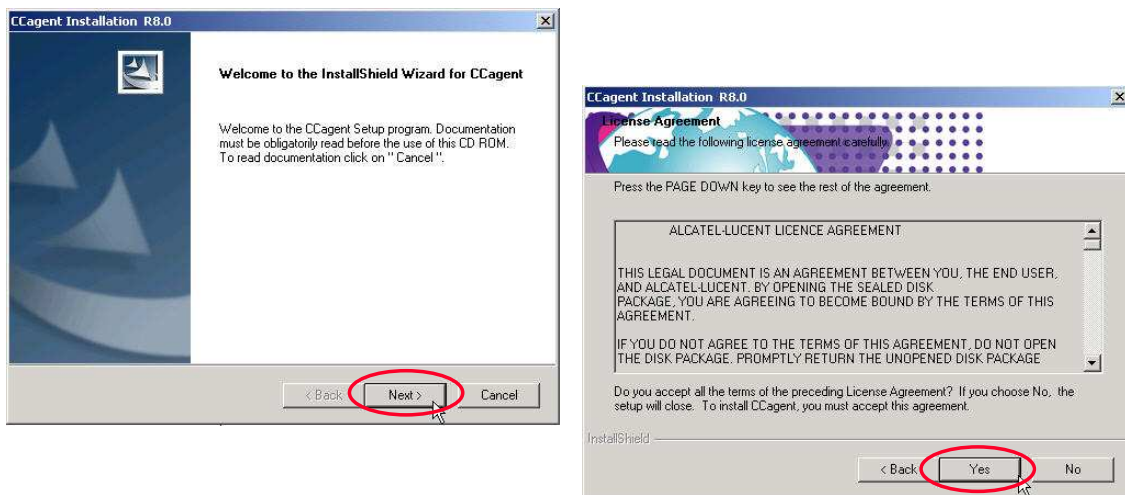
Broker call(flip flop)
Enquiry call
Three-Party conference
Call back on no reply or busy
Busy camp on
Voice mail deposit

Prefixes

Direct call pick up
Group call pick up
Voice mail consult
Conversation recording
Voice mail deposit
Business account code (optional)
waiting call consultation
DTMF end to end signaling
Malicious call trace

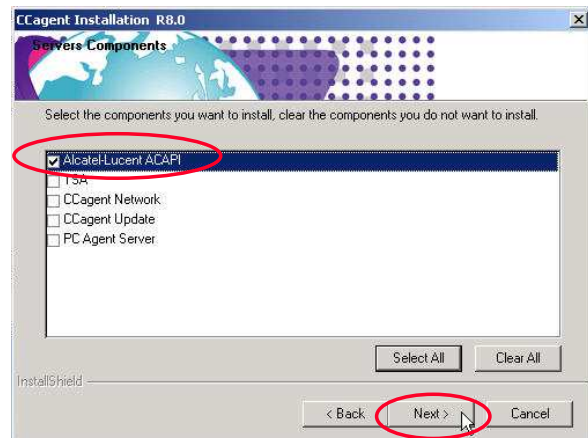
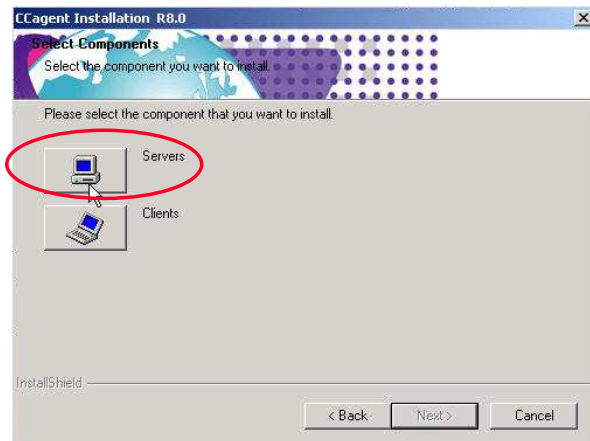
■ Alcatel-Lucent ACAPI server installation

- Alcatel-Lucent server allows to obtain specific PCX information
 - CMISE link with the OmniPCX (CcA clients retrieval)
 - CMIP protocol
- Run « set-up.exe » from the root directory



■ Alcatel-Lucent ACAPI server installation (next)

- It 's possible to install components
 - separately (one server for each function)
 - or globally (All components on the same server)

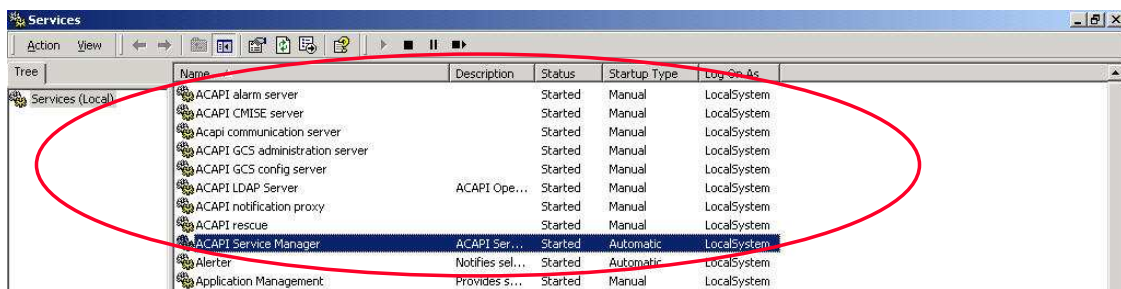


■ Alcatel-Lucent ACAPI server installation (next)

- ACAPI R2 is installed

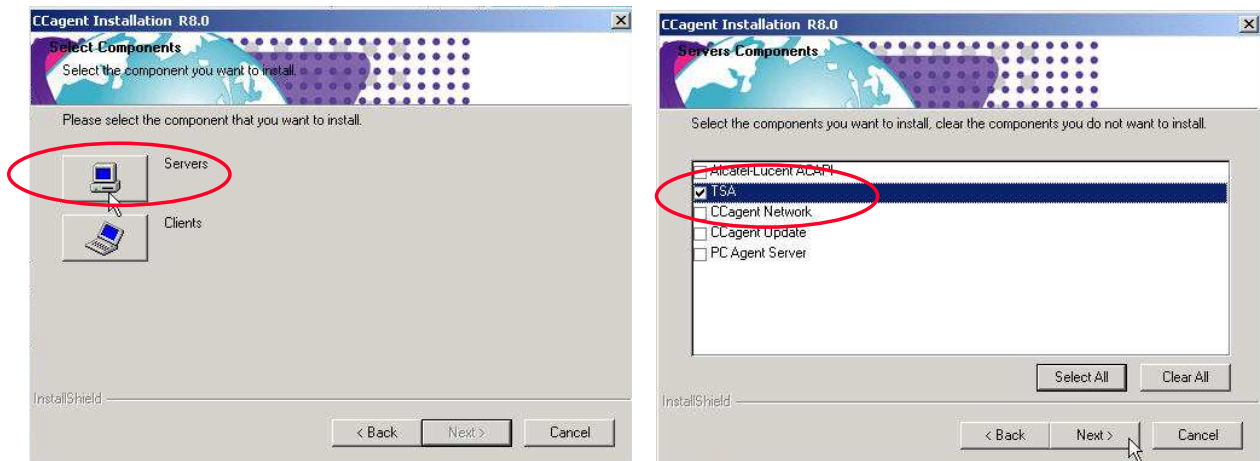


- ACAPI services will be started automatically, after PC start up
 - Start / settings / control panel / administrative tools / services

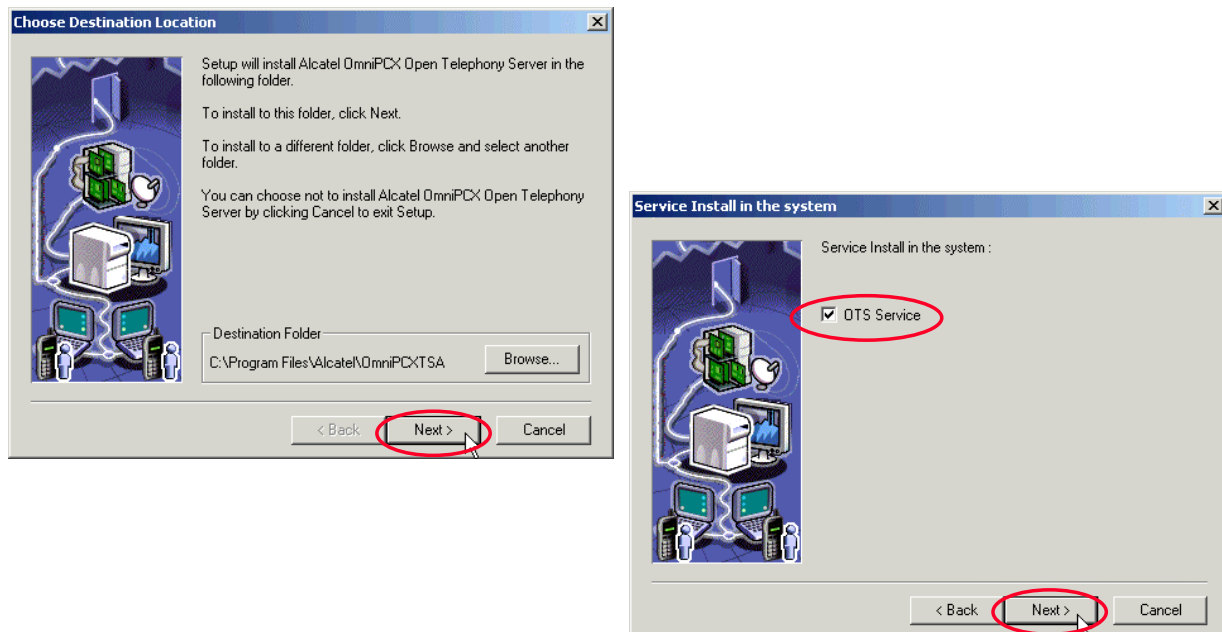


■ Alcatel-Lucent OTS server installation

- Ensures the link between the CCa client and the PCX (CSTA process)
 - CSTA protocol
 - Telephone events received from the PCX
 - Telephone services send to the PCX
- Run « set-up.exe » from the root directory



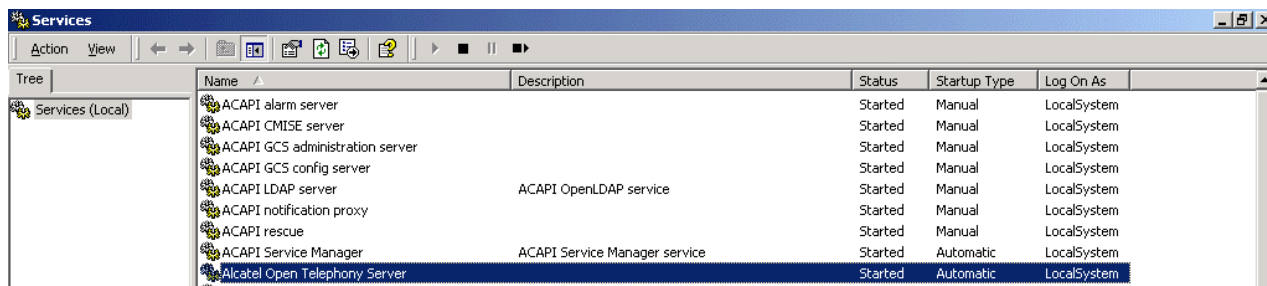
■ Alcatel-Lucent OTS server installation (next)



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- If « OTS service » parameter is enabled, it will be installed as a « Windows service » that will be consultable from:
 - Start / settings / control panel / administrative tools / services



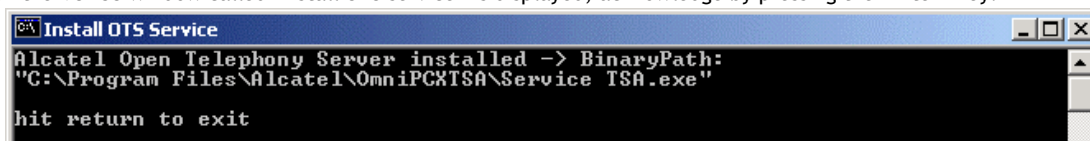
It will be possible to start the service from this window

- If « OTS service » parameter is disabled, it won't be installed as a « Windows service » and won't be viewable in:
 - Start / settings / control panel / administrative tools / services

You will be obliged to install it manually by using:

- Start / programs / Alcatel OmniPCX OTS / services / Install OTS service

When the MSDOS window called "Install OTS service" is displayed, acknowledge by pressing the "Enter" key.



After this command, "Alcatel OTS" service will be installed as a « Windows service » that will be consultable from:

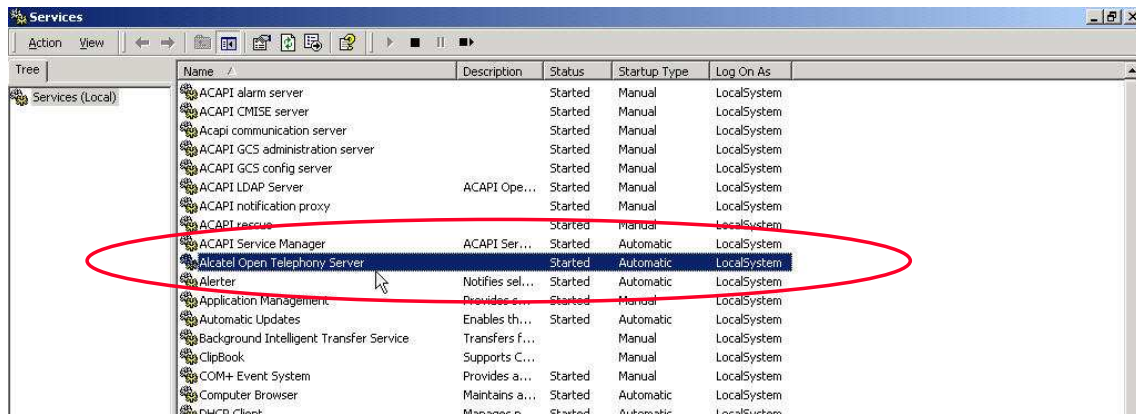
- Start / settings / control panel / administrative tools / services

It will be possible to start the service from this window

■ Alcatel-Lucent OTS server installation (next)

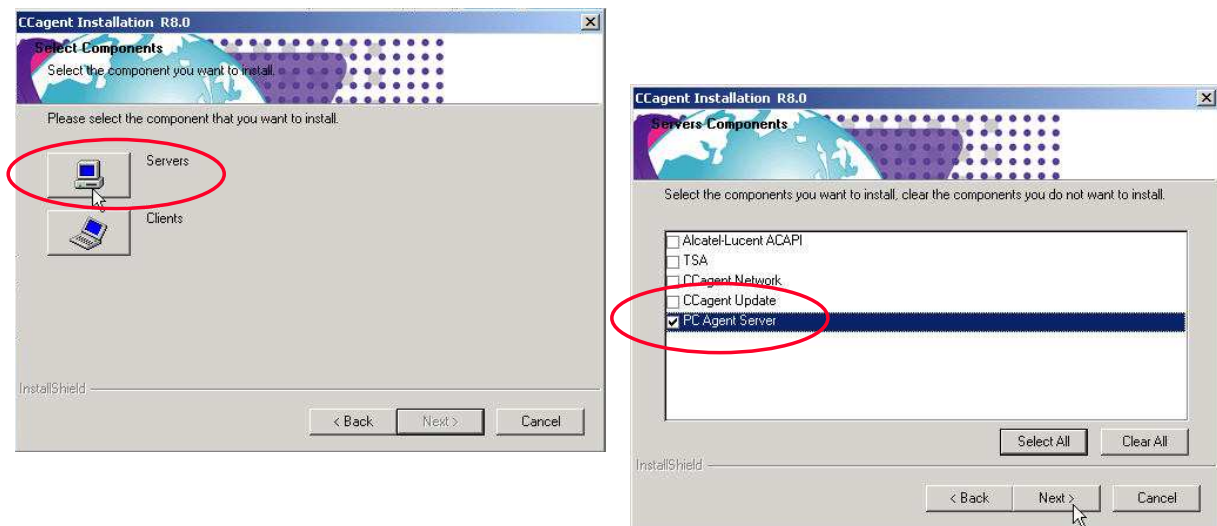
- The “Alcatel Open Telephony service” will be started automatically, on PC start up

□ Start / settings / control panel / administrative tools / services

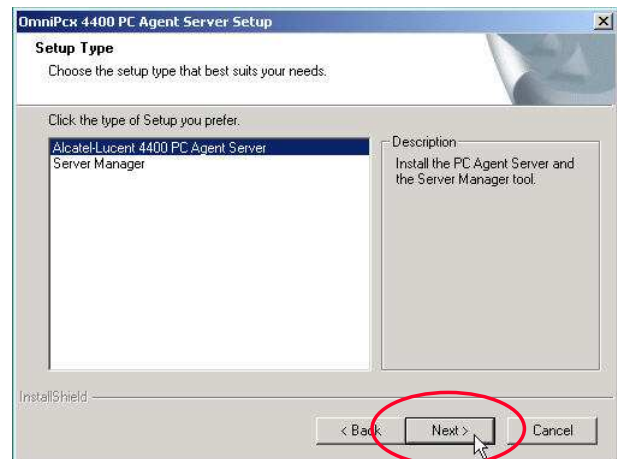
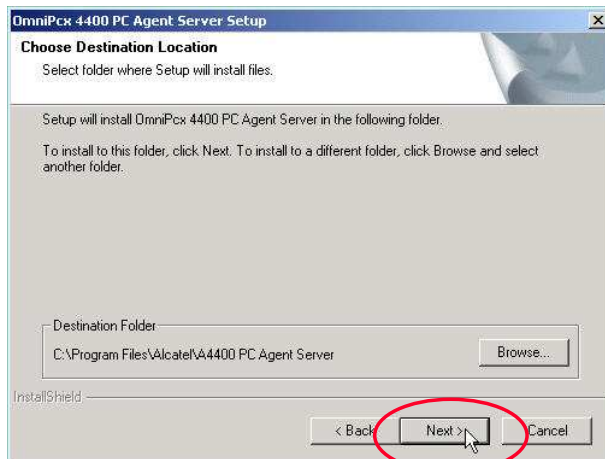


■ PC agent server installation

- Establishes the link between the CCa client and the PCX AFE
 - Used for statistics (agent, processing groups)
- Run « set-up.exe » from the root directory



■ PC agent server installation (next)



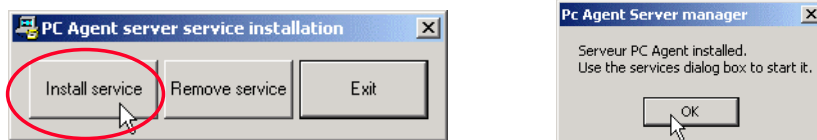
● Notes:

- The PC agent server and the server manager tool will be installed in that case

■ PC agent server installation (next)

● Install the “serveur PC agent” service

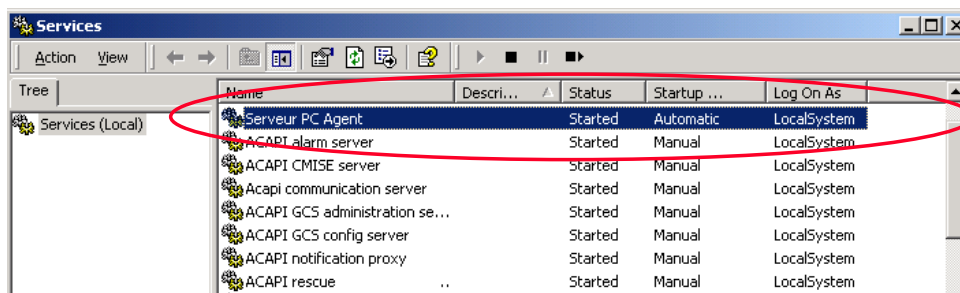
- Start / Programs / Alcatel / A4400 PC Agent Server / Service Installation



● Reboot the server

● The “serveur PC agent” service will be started automatically after PC reboot

- Start / Settings / Control Panel / Administrative Tools / Services



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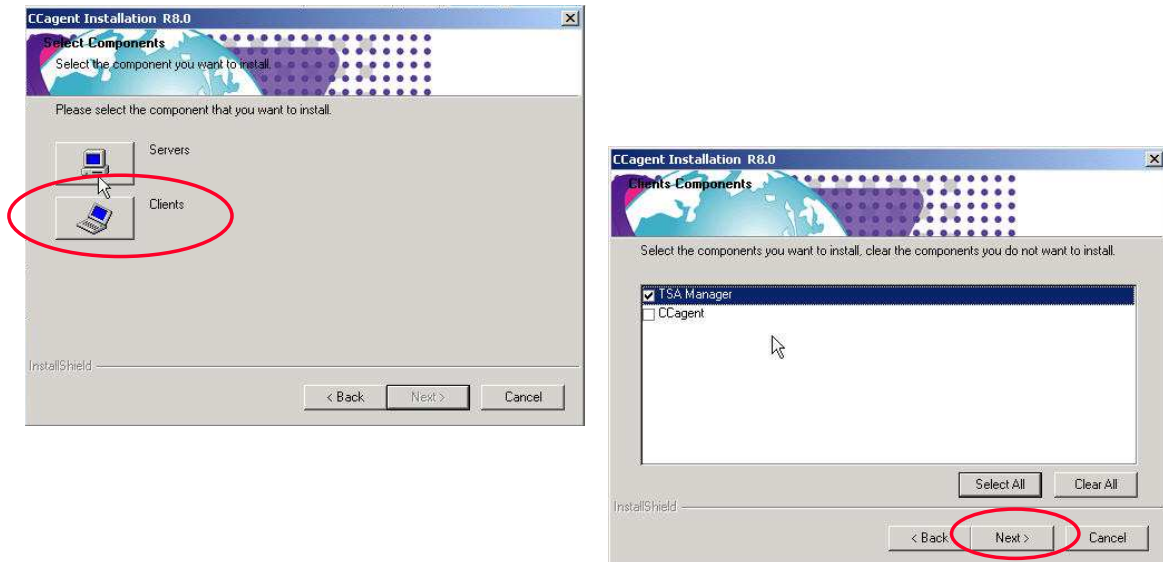
16

The server reboot is required



■ Alcatel-Lucent OmniPCX OTS Manager client installation

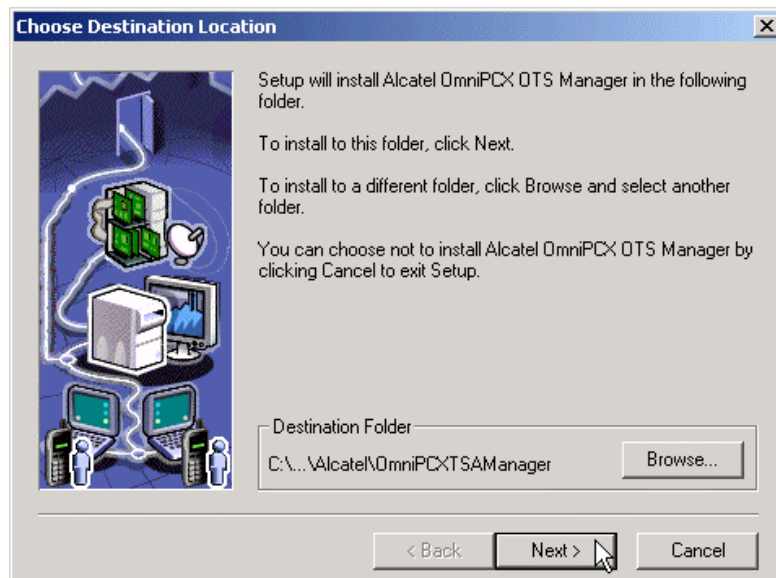
- This tool is a client used to configure the OTS server and the ACAPI server
- Run « set-up.exe » from the root directory



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You can specify the installation directory for the OTS manager tool



■ Alcatel-Lucent OmniPCX OTS Manager

- To run it:

- ☐ Start / programs / Alcatel OmniPCX OTS Manager



- ☐ Enter the Host name of the OTS server



It is mandatory to define an IP name for the OTS server name (**Localhost name is not accepted by the system !!!**)

If there is no DNS server or simply to make the connection more efficient, you are recommended to create a hosts file (or simply to modify it) on the OTS server which will include at least the hostname and the IP address of the PABX. Similarly on each client, which will include at least the hostname and the IP address of the OTS server.

DNS: Domain Name Service. Protocol which supplies an Internet database containing host and domain names.

For Windows NT, 2000 and XP, this file is stored in the directory "c:\winnt\system32\drivers\etc".

For Windows 95, this file is stored in the directory ' » c:\windows\system »

■ Alcatel-Lucent OmniPCX OTS Manager

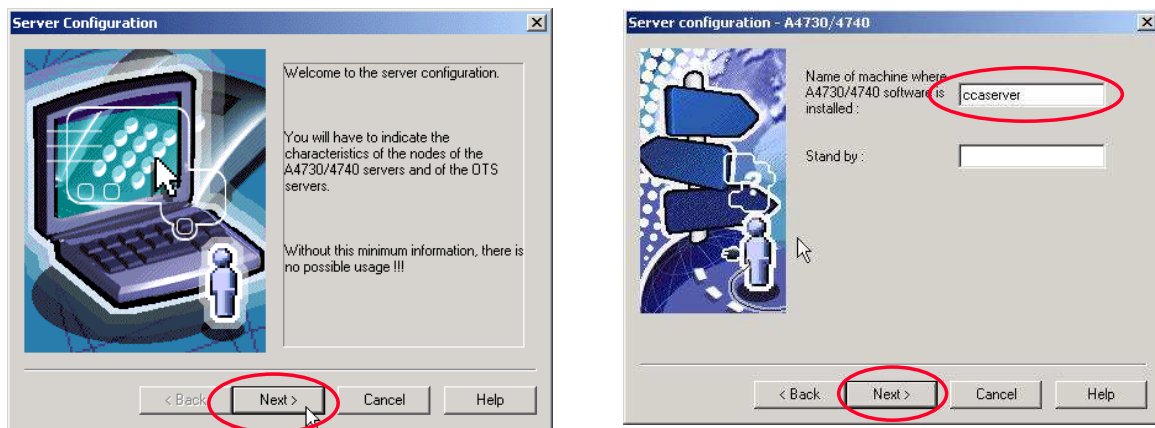
- Enter the password
 - Name = SuperUser
 - Password = SuperUser



- The password must be changed at the first Log on

■ Alcatel-Lucent OmniPCX OTS Manager

- Some settings have to be entered before using the OTS manager tool

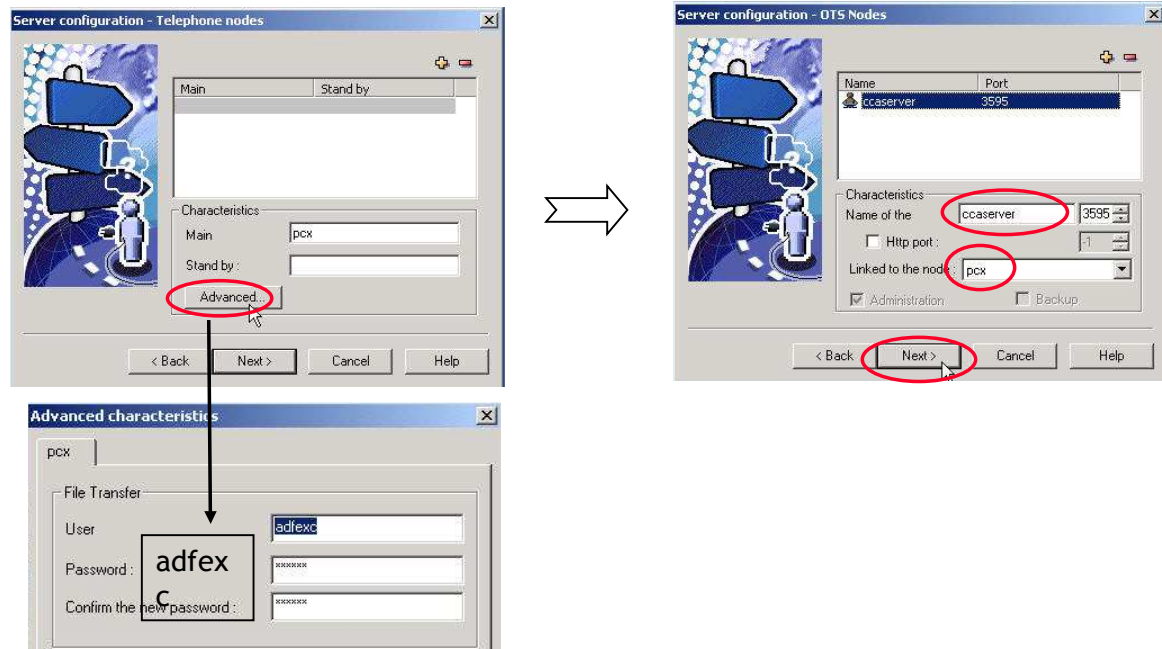


- Enter the MAIN ACAPI server hostname (e.g: ccaserver)
- Enter the STAND-BY ACAPI server hostname (if used)

ACAPI server hostname must be specified in the DNS or in the PC host file

■ Alcatel-Lucent OmniPCX OTS Manager

- Enter the OmniPCX hostname (e.g: PCX)

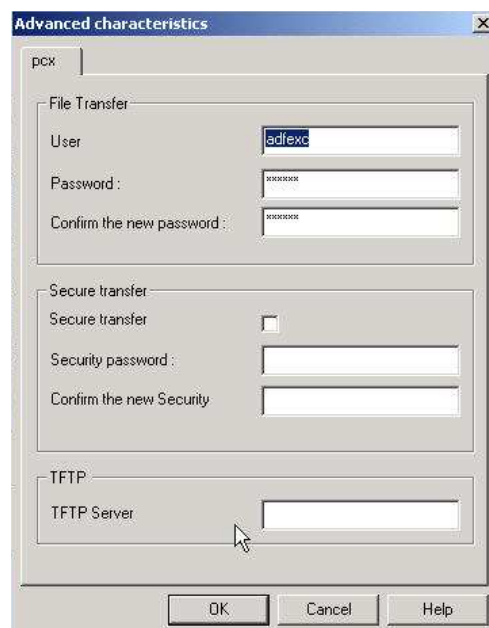


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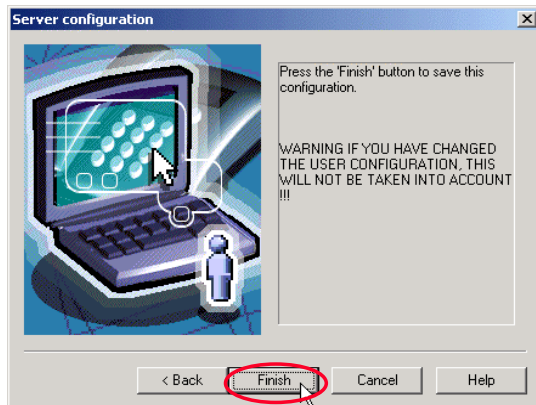
21

PCX hostname must be specified in the DNS or in the PC host file

The password for "file transfer" is: **adfexc**



■ Alcatel-Lucent OmniPCX OTS Manager



Settings management is finished

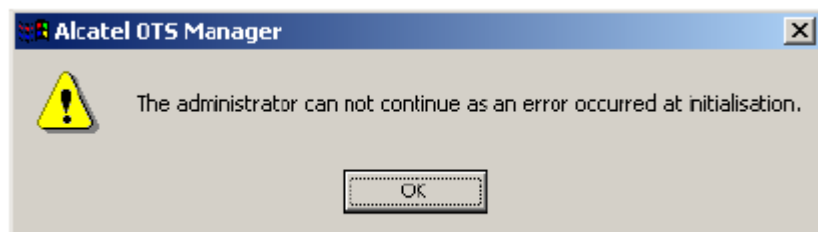
Close the window and restart the OTS Manager client



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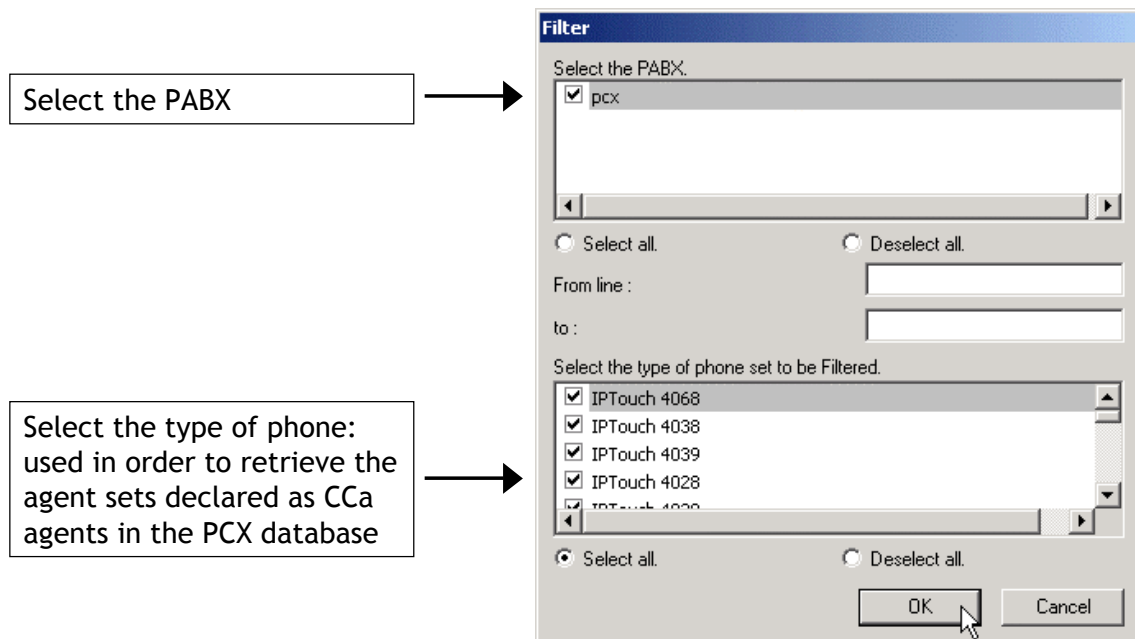
22

The following window will appear



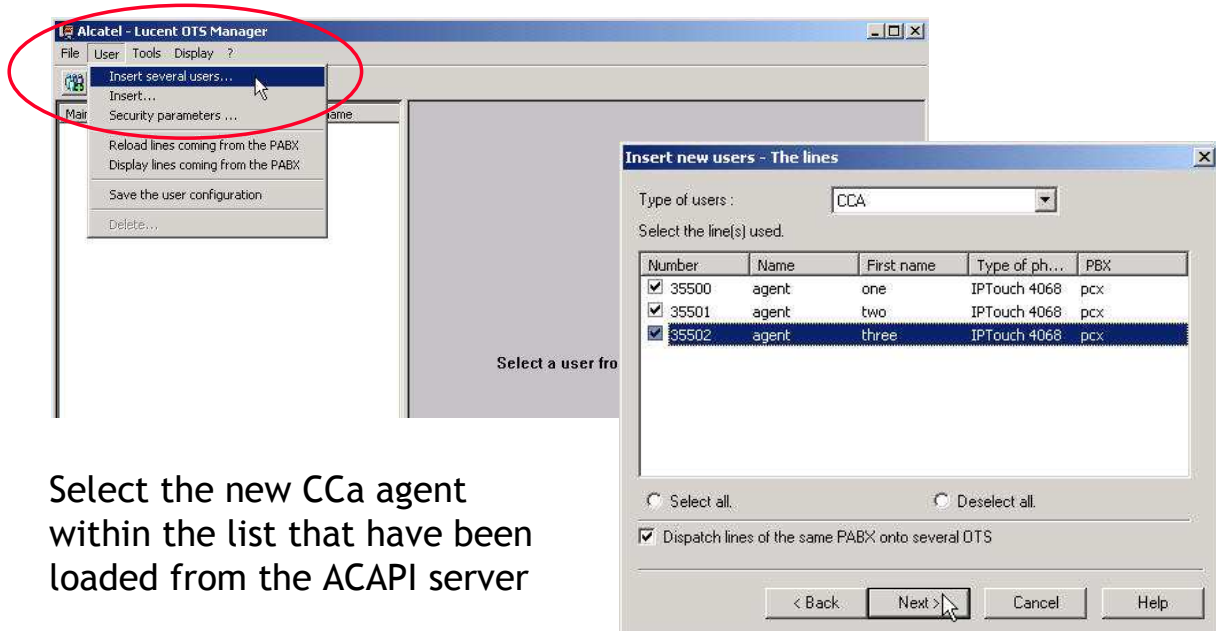
So, restart the OTS manager tool.

■ Alcatel-Lucent OmniPCX OTS Manager



■ Alcatel-Lucent OmniPCX OTS Manager

- Insert several users (agents declared as CCA agents)



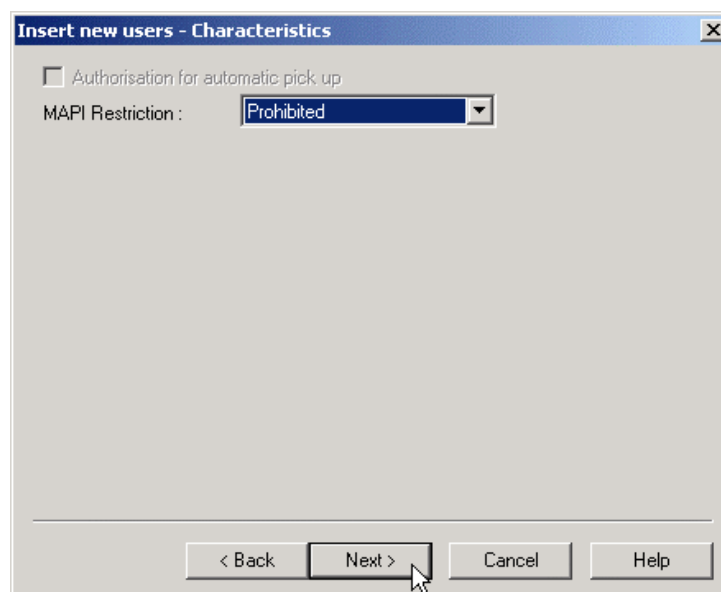
Select the new CCA agent within the list that have been loaded from the ACAPI server

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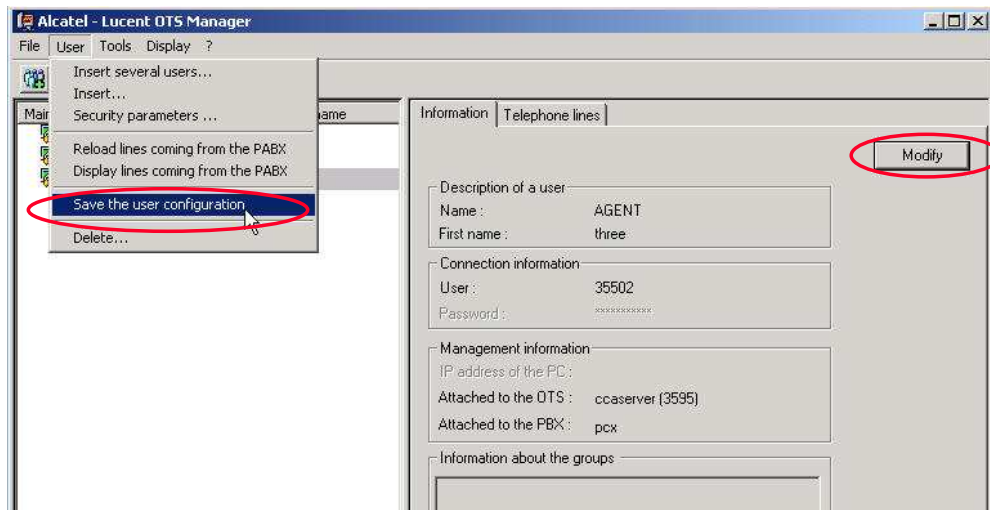
Notes:

Don't validate the MAPI restriction if you don't use the electronic mail



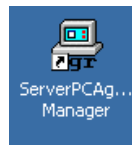
■ Alcatel-Lucent OmniPCX OTS Manager

- Some users parameters can be modified (“Modify” button)
 - Agent name, agent first name, OTS server, MAPI...
- Don’t forget to save the user configuration



■ Server PC Agent Manager

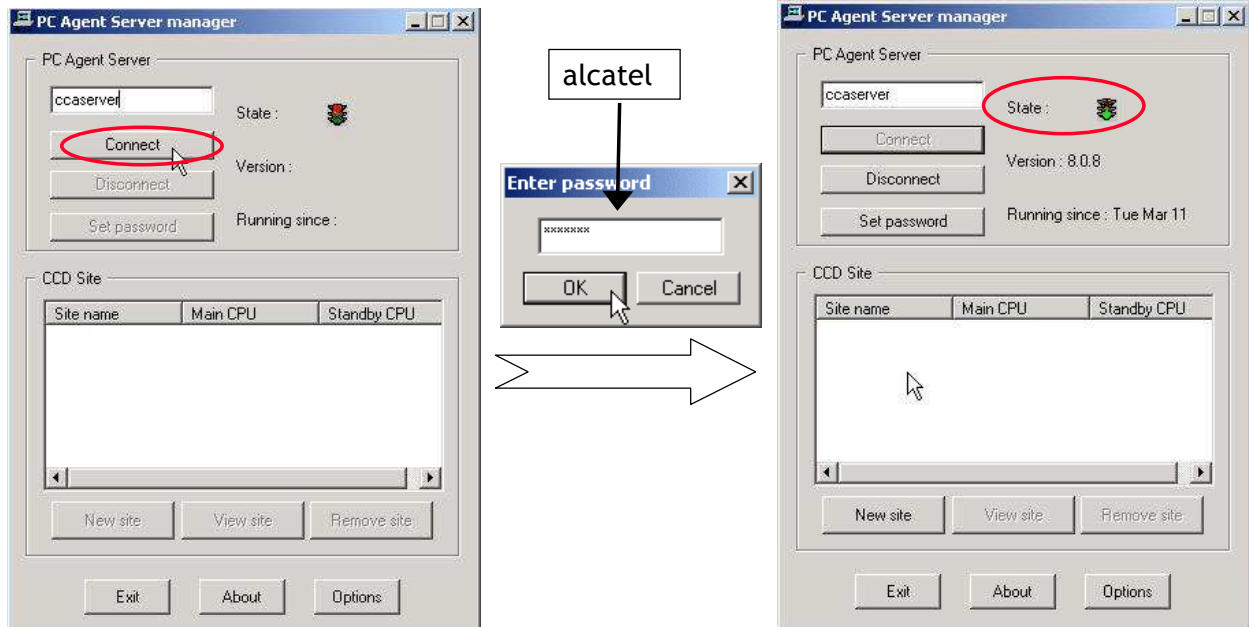
- This tool is a client used to configure the Server PC Agent
- It's installed automatically during the PC agent server set up (if the option is enabled)
- To run it:
 - Start / programs / Alcatel-Lucent / A4400 PC Agent Server / Server Manager



- This tool is used to check the connection between the PC Agent Server and the Alcatel-Lucent OmniPCX Enterprise

■ Server PC Agent Manager

□ Enter the PC Agent Server hostname



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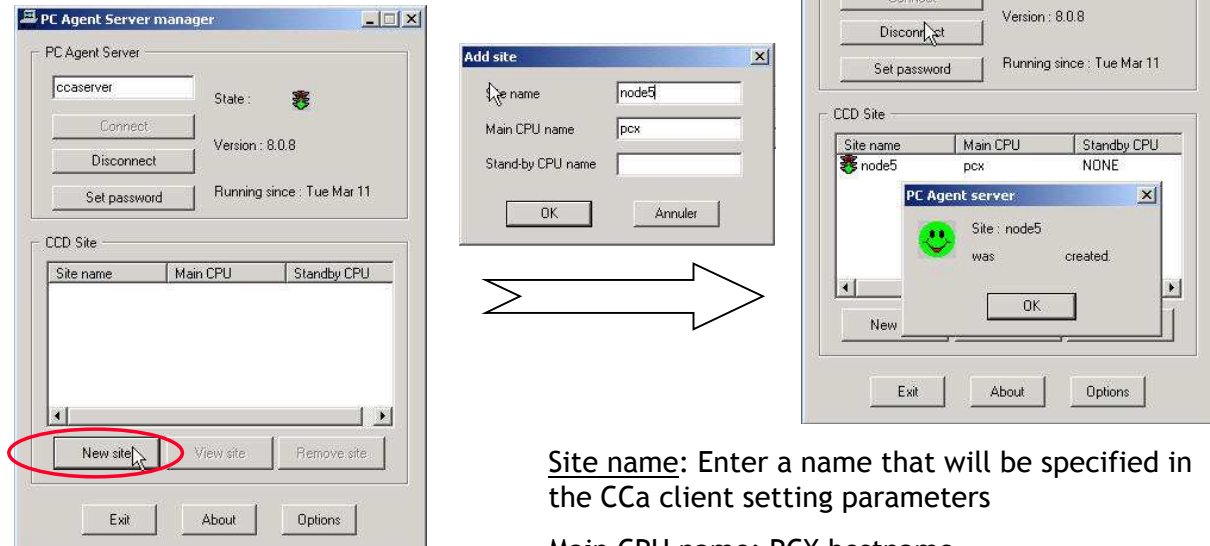
LOCALHOST is used to connect to the local server

If the **PC Agent server** is installed on another PC, the Hostname of the server should be used

Default Password is: **alcatel**

■ Server PC Agent Manager

□ Add a new site (PCX hostname)



Site name: Enter a name that will be specified in the CCA client setting parameters

Main CPU name: PCX hostname

PCX hostname must be specified in the DNS or in the PC host file

Site name: It corresponds to an Identifier that will be used by the CCA

Main CPU: Hostname or IP address of the Alcatel-Lucent OmniPCX Enterprise to connect (Main CPU)

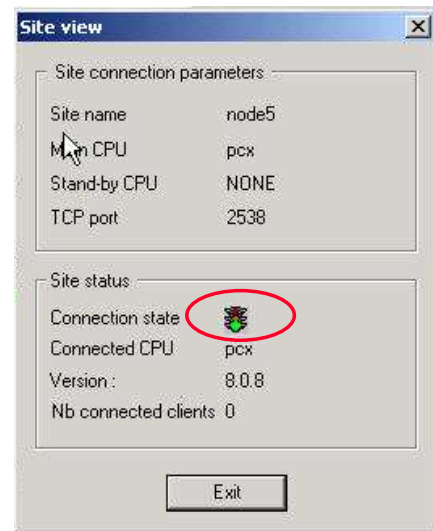
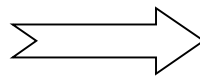
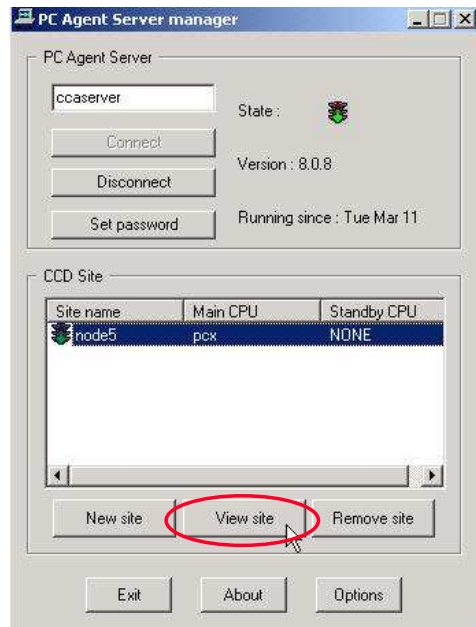
Stand by CPU: Hostname or IP address of the Alcatel-Lucent OmniPCX Enterprise to connect (Stand by CPU)

To be sure that the IP connection is valid, a ping of the Alcatel-Lucent OmniPCX Enterprise host name is necessary.

Only one PC Agent server per node with 1000 CCagent, but one PC agent server can support several PBX nodes

■ Server PC Agent Manager

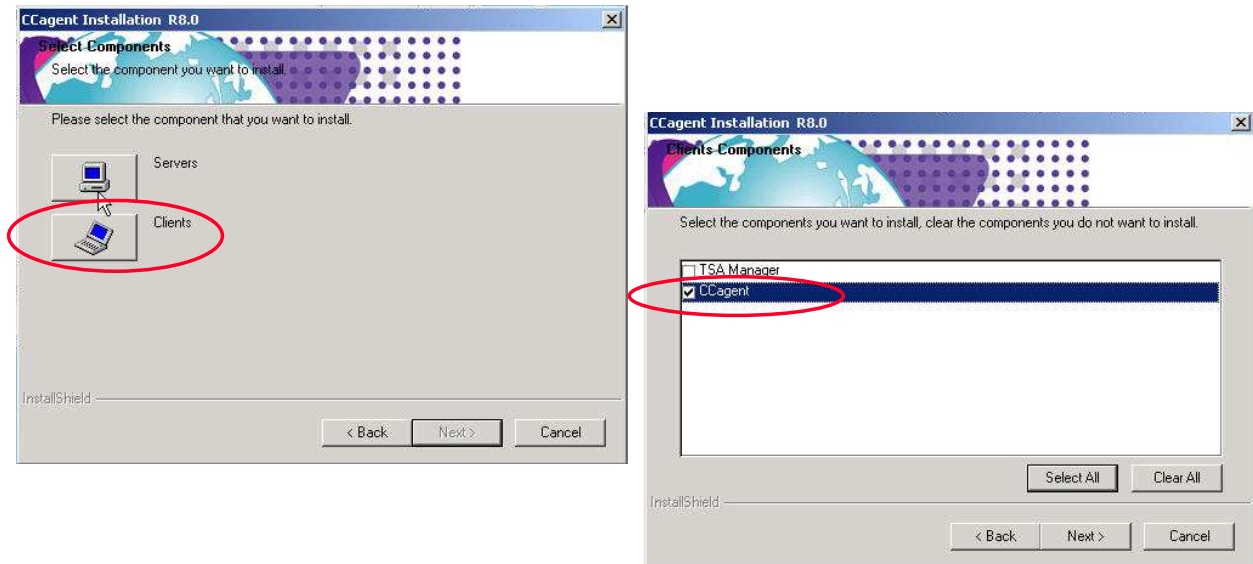
- “Node5” is created



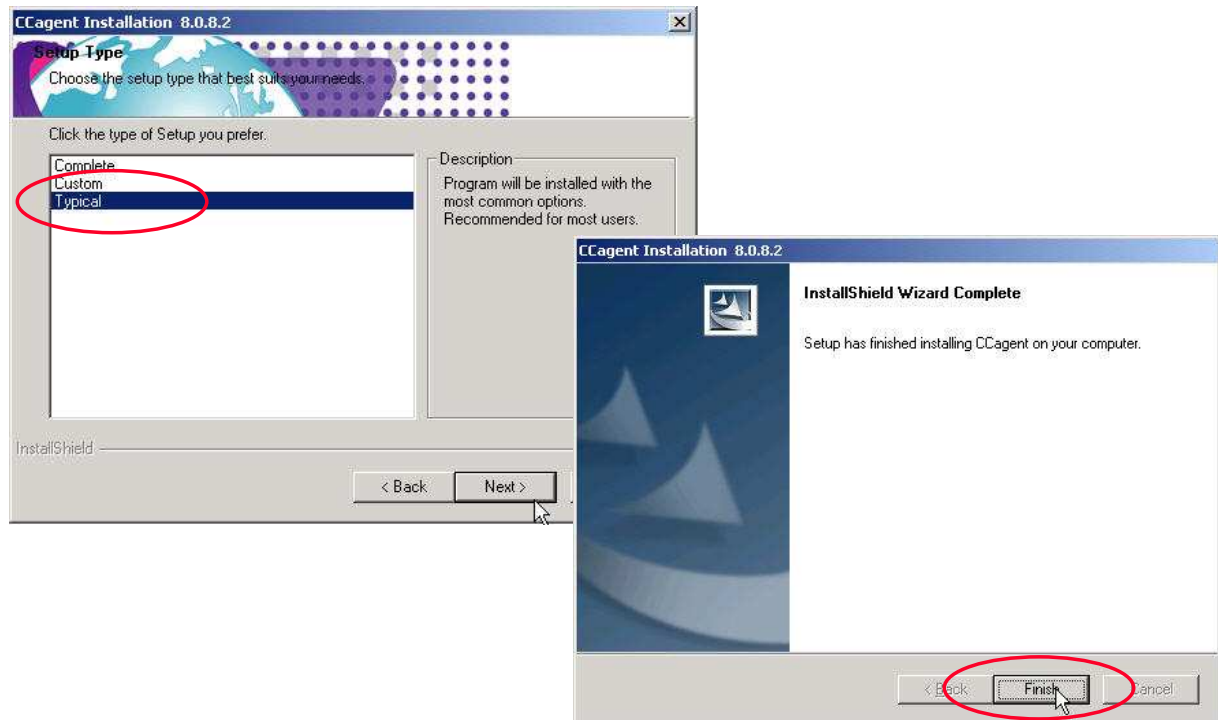
The flag should be green if the connection is OK

■ CCa client software installation

- The CCagent installation software is present locally on your PC
- Run « set-up.exe » from the root directory



■ CCa client software installation



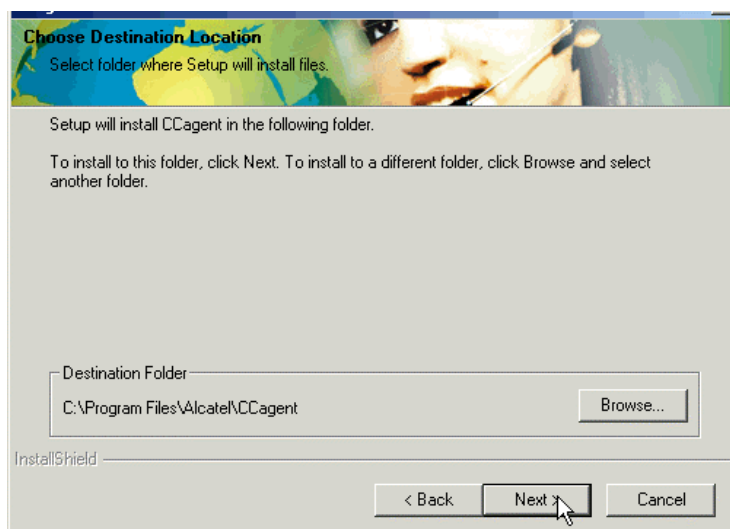
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Installation type:

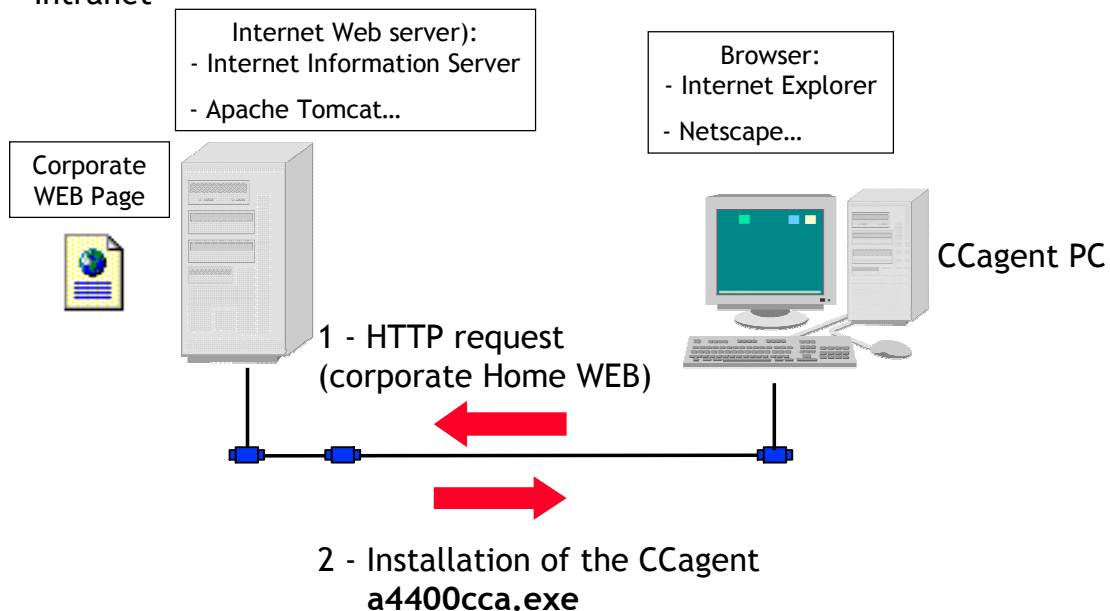
- Custom: CCa Update, CCa SDK, Installation documentation, Genesys components
- Complete: CCa +UAD
- Typical: CCa

You can specify the installation directory for the CCA client software



■ Contact Center Agent Network

- The CCA could be installed, from a Web server, on any PC connected to the Intranet

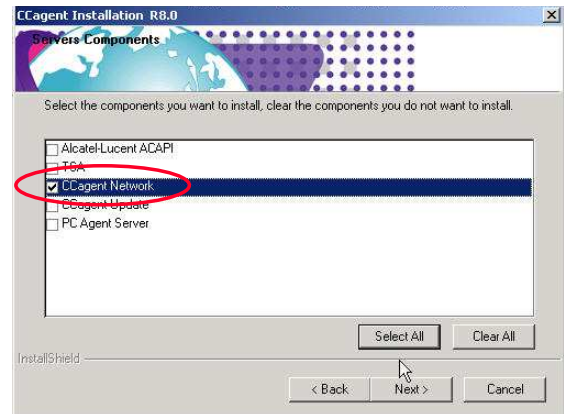
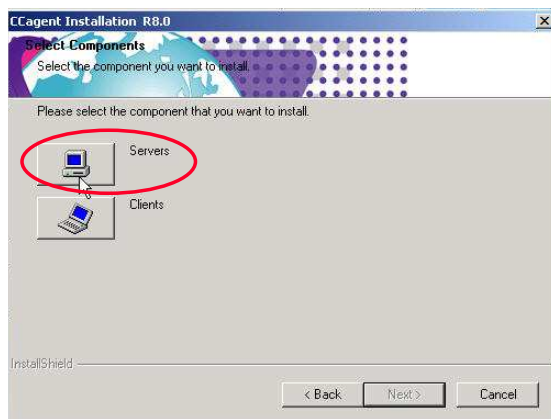


Note: an Intranet Corporate Web server should have been installed previously by the customer: IIS, Apache, Java Web Server

■ Contact Center Agent Network

● On the Web server, install the CCa Network module

- A directory has been created
 - \ InetPub \ WWWroot \ Web setup X.X.X.X\ (where X.X.X.X is the CCa software release)
- It contains
 - The CCagent installation file “a4400cca.exe” (auto installation and auto configuration of a CCagent client)
 - A WEB page for installation from the WEB

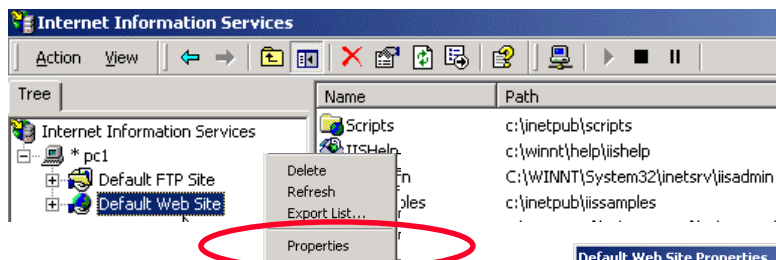


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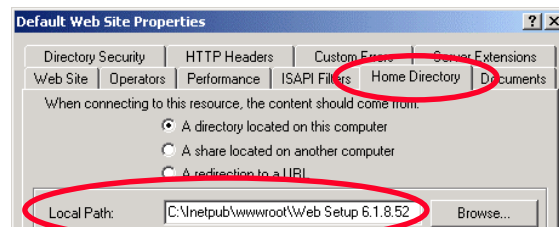
33

On the Web server:

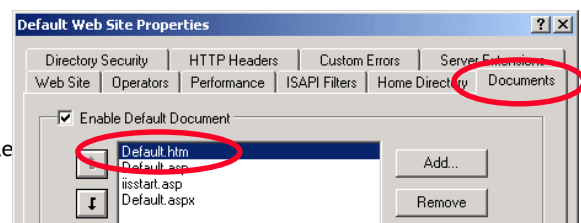
1. Install I.I.S (Internet Information Services: example given)
2. Go to « control panel » / administrative tools / Internet Services Manager
 - Select « Default Web Site » and edit the properties



3. In the « Home Directory » tab, specify the « local path »
 - C:\InetPub\wwwroot\Web Setup X.X.X.X (where X.X.X.X is the CCa software release)

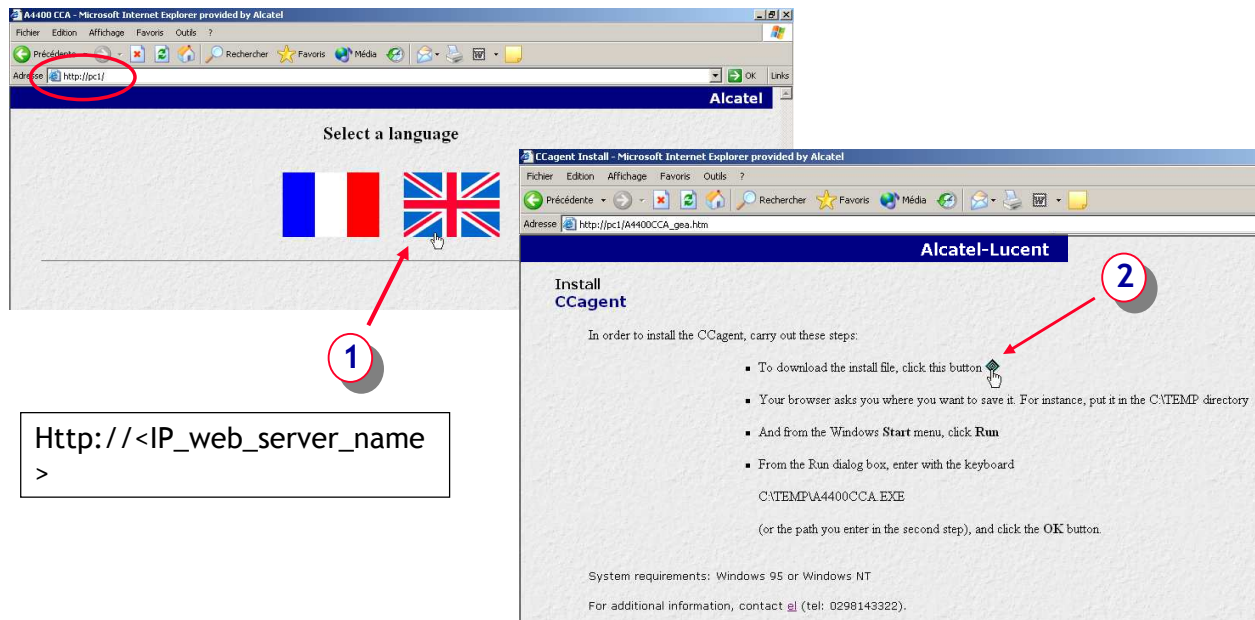


4. In the « Documents » tab:
 - Enable the default Document
 - And select, at the top of the window, the « Default.htm » file



■ Contact Center Agent Network

- On the PC where you want to install the CCA client software
 - Run an Internet browser and map the Internet server

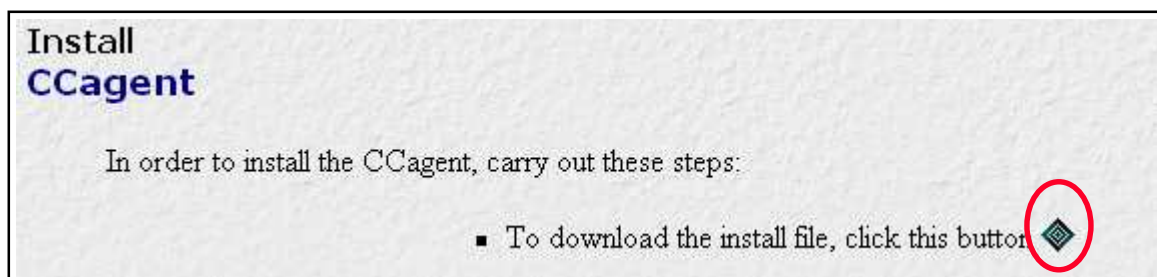


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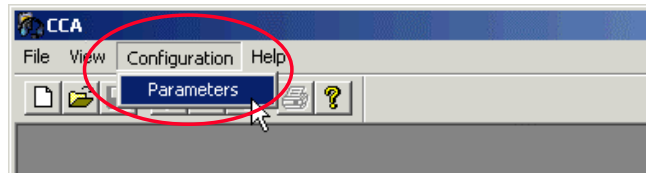
On the client PC:

1. Open an internet browser
2. Enter as URL the Web server hostname (or the IP @)
3. Download the « install files » by clicking the button



■ CCa client configuration

- Run CCagent:
 - Start / Programs / Alcatel / CCagent / CCagent
- The CCa configuration window opens:



- From the menu, select Configuration , then Parameters

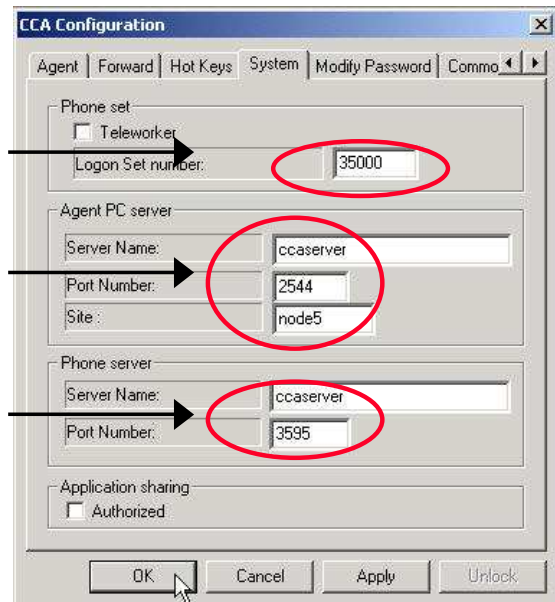
■ CCa client configuration

- Click the System tab

Logon set number: Enter the ACD authorized phone set N° (physical set number)

Server Name: Enter the name of the PC Agent server
Site: Enter the PCX host name

Server Name: Enter the name of the OTS server



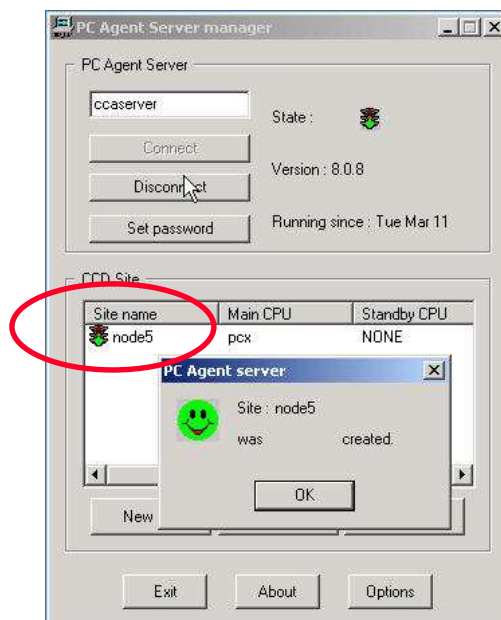
The image shows the 'CCA Configuration' dialog box with the 'System' tab selected. The 'Phone set' section has 'Teleworker' unchecked and 'Logon Set number' set to 35000. The 'Agent PC server' section has 'Server Name' set to ccaserver, 'Port Number' set to 2544, and 'Site' set to node5. The 'Phone server' section has 'Server Name' set to ccaserver and 'Port Number' set to 3595. The 'Application sharing' section has 'Authorized' unchecked. Red circles highlight the 'Logon Set number', 'Agent PC server' fields, and 'Phone server' fields. Arrows point from the text boxes on the left to the corresponding fields in the dialog.

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Agent PC server:

« Site »: Enter the name of the PCX declared in the PC agent server manager tool (check page 28: « site name » parameter)



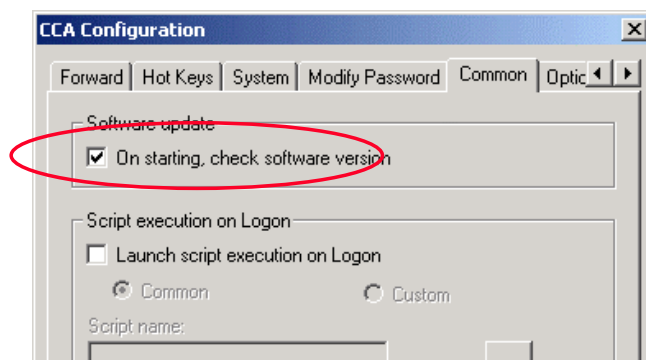
The image shows the 'PC Agent Server manager' dialog box. The 'PC Agent Server' section has 'ccaserver' entered, 'State' is 'Running', 'Version' is '8.0.8', and 'Running since' is 'Tue Mar 11'. The 'CCD Site' section has a table with 'Site name', 'Main CPU', and 'Standby CPU' columns. The first row shows 'node5', 'pcx', and 'NONE'. A red circle highlights the 'node5' entry. A small 'PC Agent server' dialog box is open in the foreground, showing 'Site : node5' and 'was created.' with a green smiley face icon and an 'OK' button.

Caution: When the System tab is opened, this port is not the default port.

■ CCa client update

- Click the common tab

- On starting, the CCa client will compare its version with the CCa server version
- In case of difference, the CCa client will be updated automatically if the «CCagent update» package has been installed on the CCa server

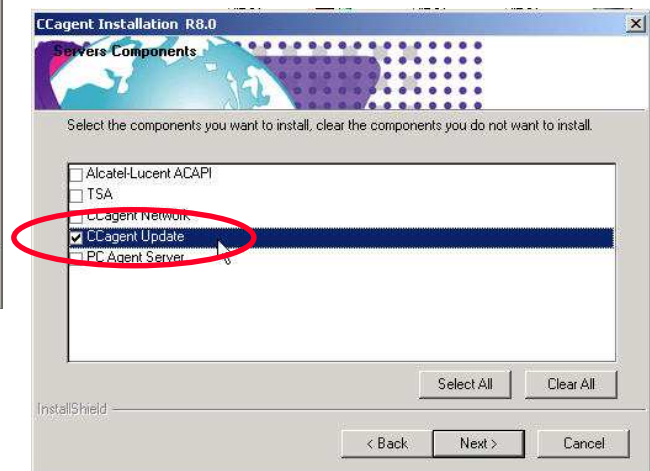
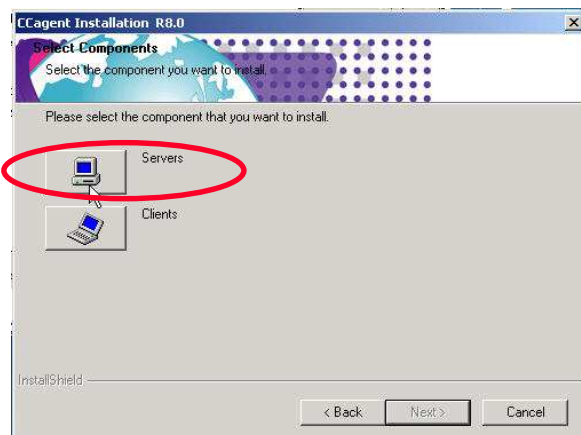


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Notes:

The CCagent update has to be installed on the CCa server



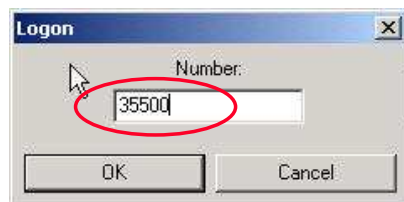
■ Start the CCa application

- Click the button to log on to your station

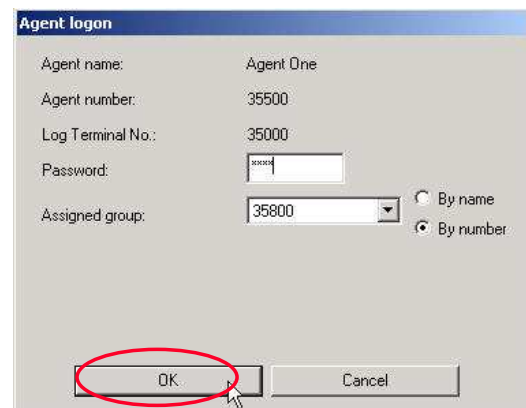


- Enter some information, if required

- ☐ Your agent number



- ☐ Your password
- ☐ Your processing group

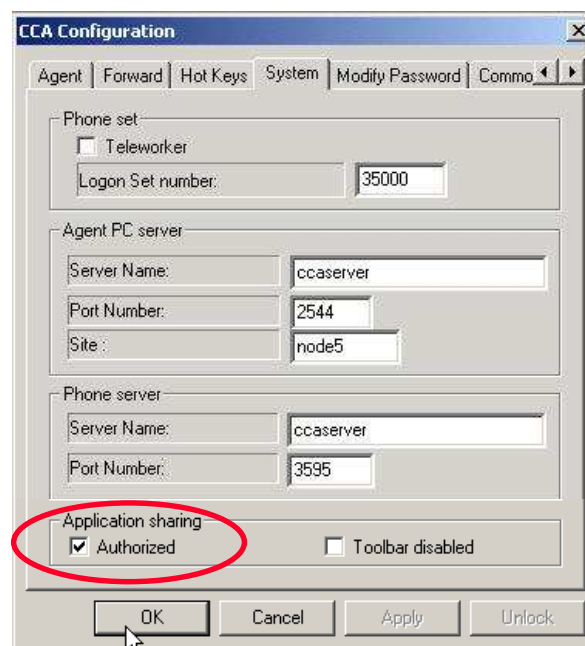


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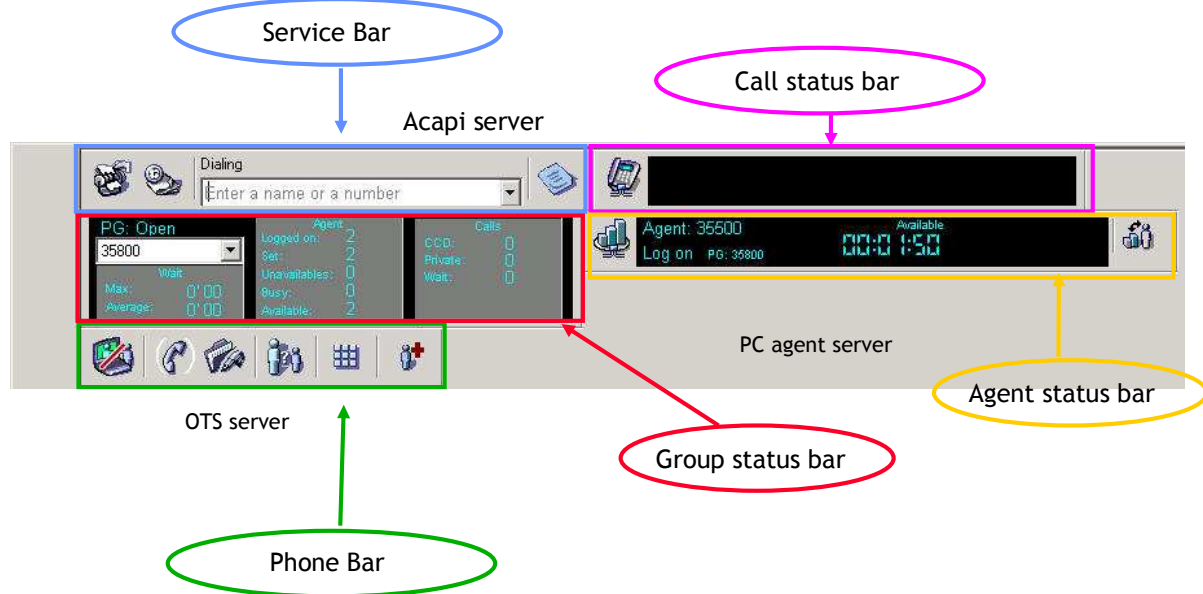
Notes:

If you check it in the CCa system settings, CCa can be synchronized with an external application (CRM, VB application ...) using OLE or DDE link.



■ Start the CCa application



- The CCa activity window is displayed



■ Maintenance

- If the OTS Server icon  and/or SPC Agent Server icon  are in RED color:

- ☐ It shows a connection problem from the CCa client PC to the CCa server
- ☐ Solution: test the network link and the network configuration by pinging the OTS and/or the SPC Agent Server with the name defined in the CCa configuration panel

- If the OTS Server icon  and/or SPC Agent Server icon  are in ORANGE color:

- ☐ It shows a connection problem from the CCa server to the PCX
- ☐ Solution: check the PCX connection by using « telnet » from the server

HANDS-ON EXERCISES

OBJECTIVE

- To learn how to install the CCa in stand-alone

MANAGEMENT

1. Alcatel-Lucent OmniPCX Enterprise database management
 - Check that the following objects are already created :
 - 3 “ACD authorized” sets (3X000,3X001,3X002)
 - Two “agent” sets (N°:3X500 and 3X501)
 - One “supervisor” set (N°:3X502)
 - Enable the CCa capability for the agent 3X500
2. Install the CCa server on your computer
 - 2.1. The ACAPI server
 - 2.2. The OTS server
 - 2.3. The PC agent server
 - 2.4. Check that the services related to these servers are started
3. Install the clients
 - 3.1. The OTS Manager client
 - 3.2. The PC agent server Manager client

4. Clients use
 - 4.1. By using the OTS Manager tool, retrieve in the OTS server the agent declared in the PCX database as CCa; try also to use the OTS maintenance tool in order to run a manual synchronization between the OTS server and the PCX
 - 4.2. By using the PC agent server Manager tool, set up the connection between the PCX and the PC agent server
5. CCa client
 - 5.1. Install the CCa client software
 - 5.2. Start the CCa client: specify the mandatory parameters (log on set number, server name, port number...)

HANDS-ON EXERCISES SOLUTIONS

OBJECTIVE

- To learn how to install the CCa in stand-alone

MANAGEMENT

1. Alcatel-Lucent OmniPCX Enterprise database management
 - Check that the following objects are already created:
 - 3 “ACD authorized” sets (3X000,3X001,3X002)
 - Two “agent” sets (N°:3X500 and 3X501)
 - One “supervisor” set (N°:3X502)
 - Enable the CCa capability for the agent 3X500

By using “mgr”, go to: “Users/ review/modify”

Review/Modify: Users

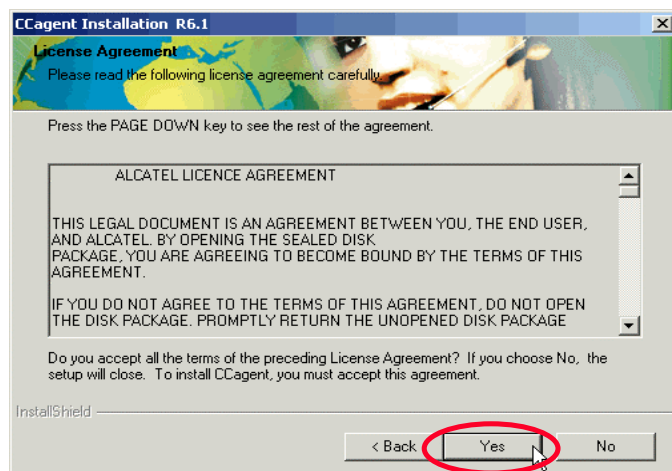
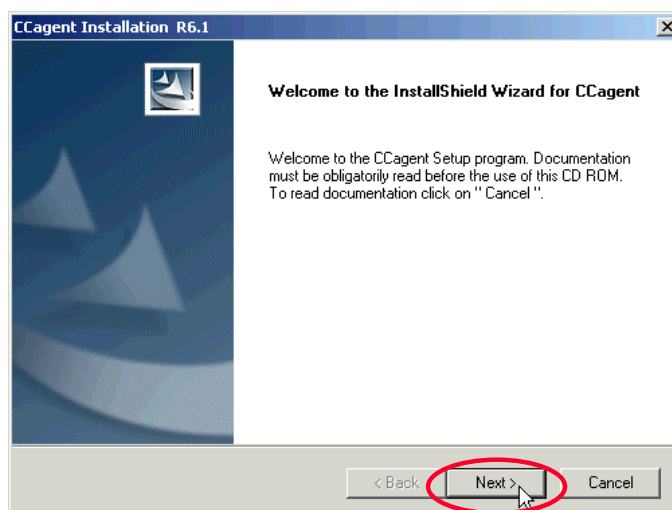
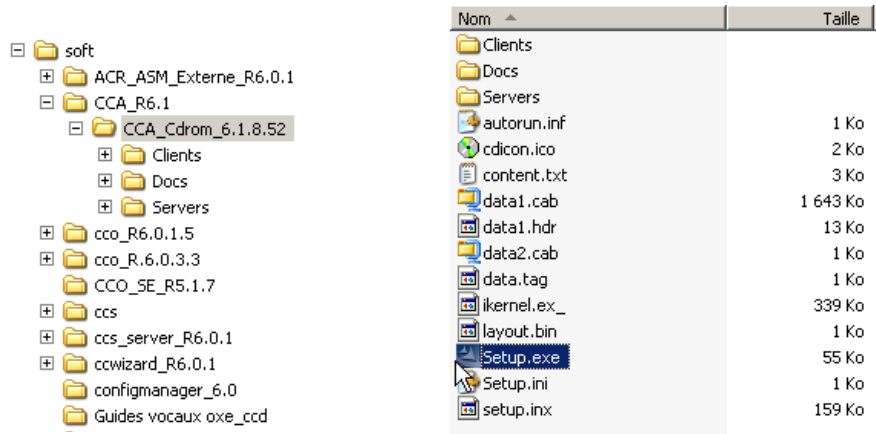
```
Node Number (reserved) : 4
Directory Number : 34500

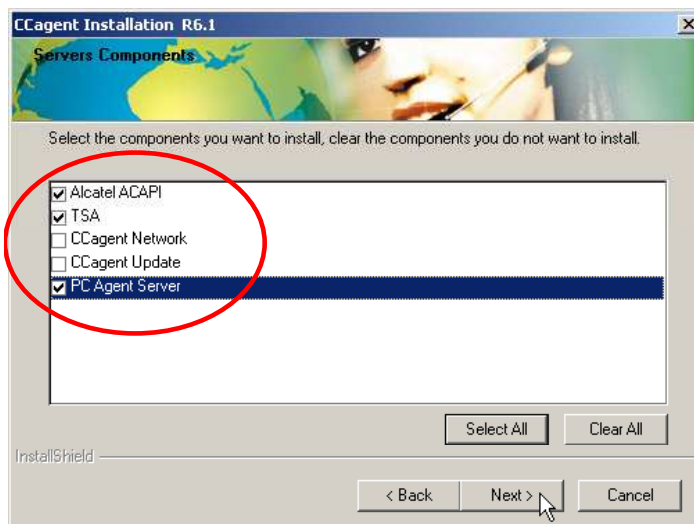
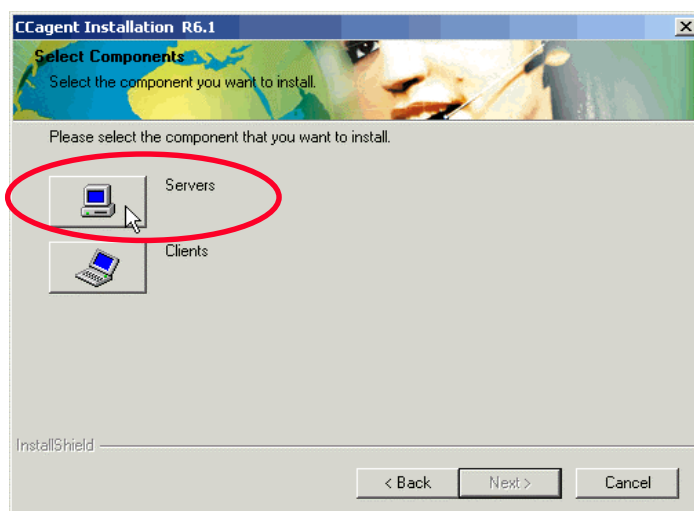
Directory name : agent
Directory First Name : one
ACD station + Agent
CCA Operations + True
```

2. Install the CCa server on your computer: follow the procedure given in the training courseware
 - 2.1. The ACAPI server
 - 2.2. The OTS server
 - 2.3. The PC agent server

2.4. Check that the services related to these servers are started

Run “set-up.exe” from the root directory

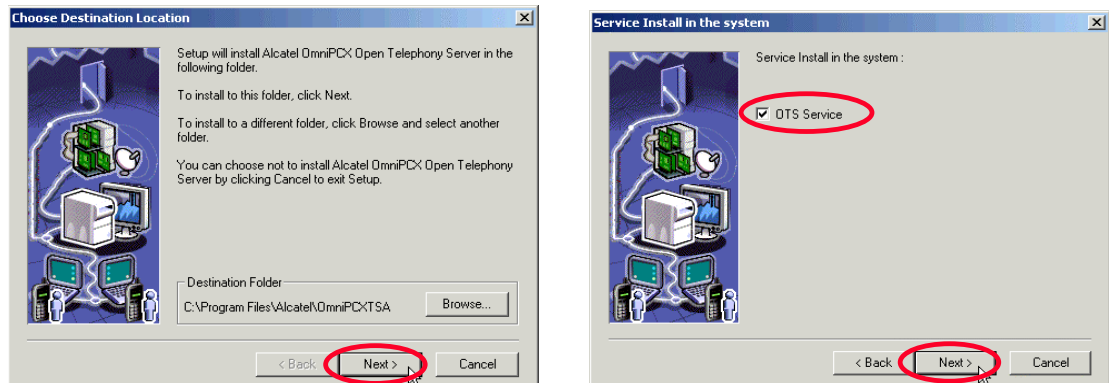




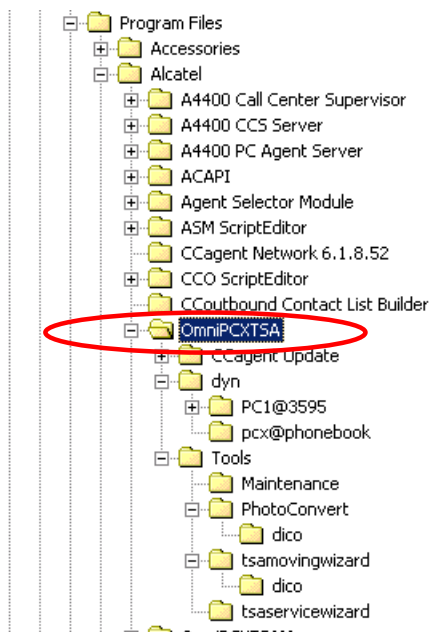
- “ACAPI” R2 installation



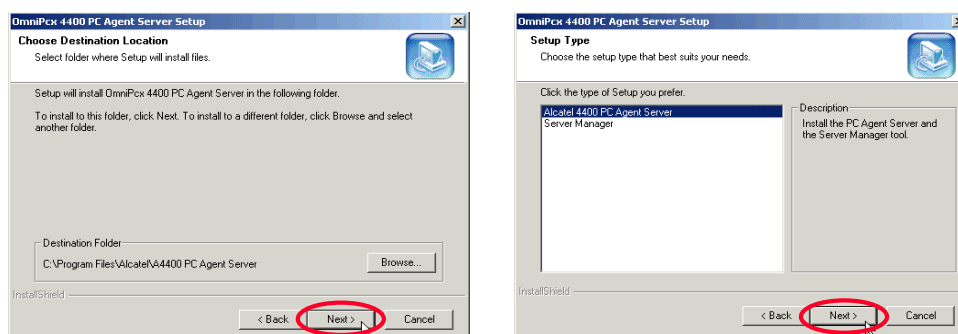
- OTS server installation



Check after the OTS server installation that the following directories are created



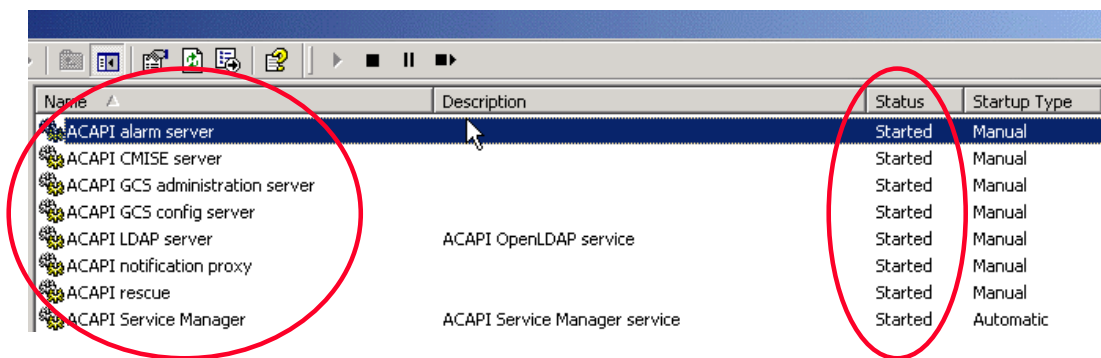
- PC agent server and PC agent server Manager tool installation



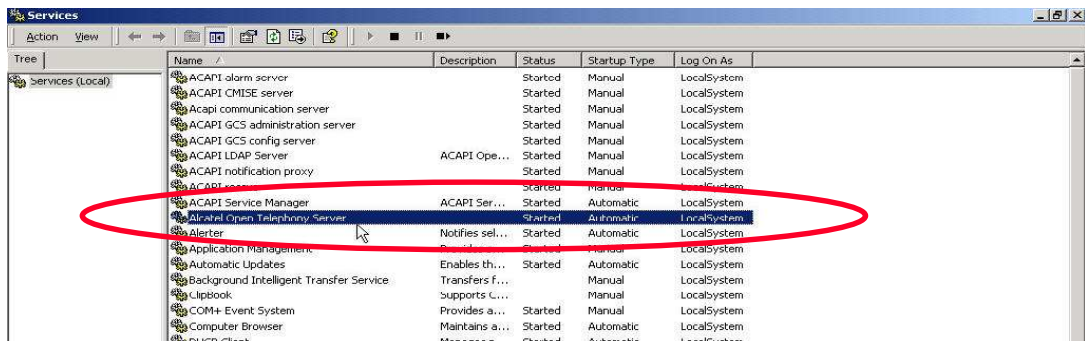


Check in the “service” window that the services related to these servers are started
Go to: “Start / Settings / Control Panel / Administrative Tools / Services”

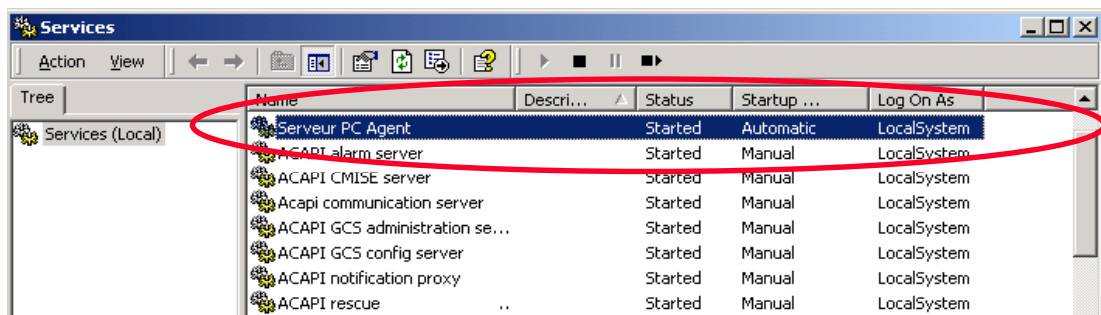
- “ACAPI” server



- OTS server



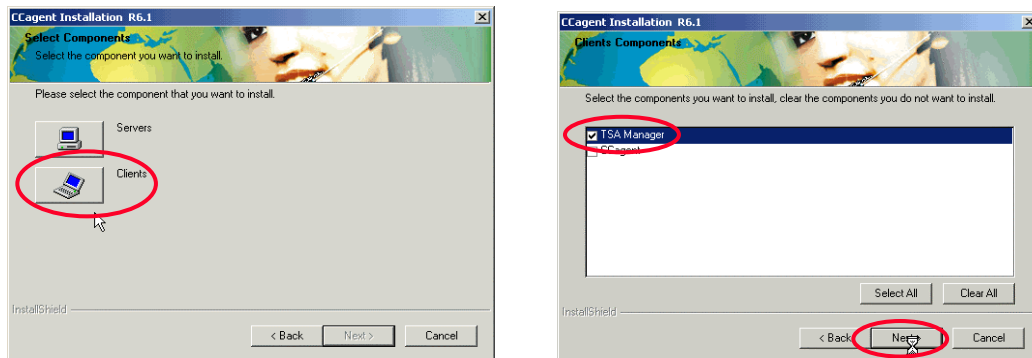
- PC agent server



3. Install the clients

3.1. The OTS Manager client

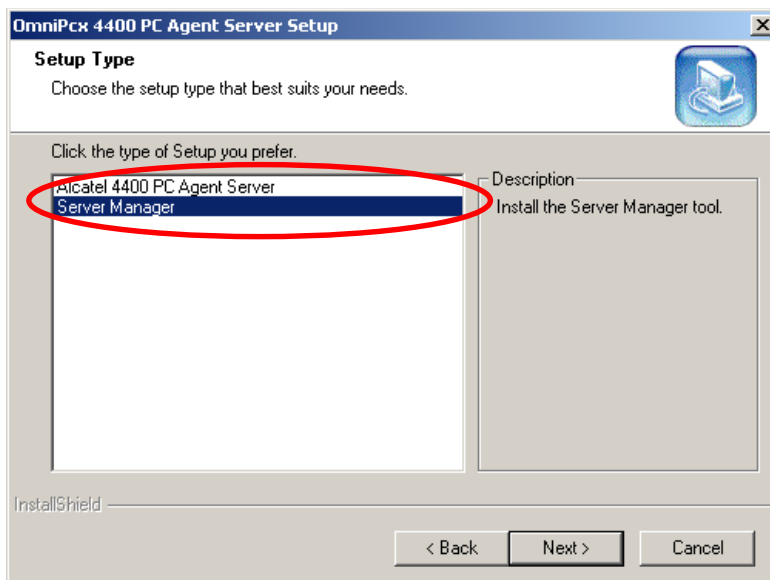
Run “set-up.exe” from the root directory



3.2. The PC agent server Manager client

This tool is installed during the “PC agent server” installation, so if this tool is used on the PC where is installed the “PC agent server”, it’s no use to install it again.

If you want to use this management tool from an other computer than the one used for the “PC agent” server, in that case you have to install it by using the following option

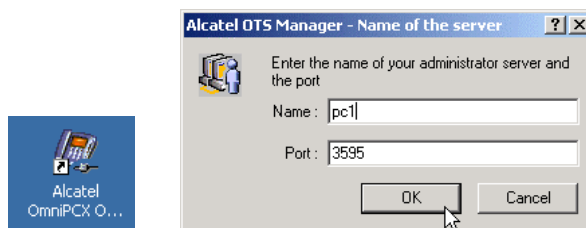


4. Clients use

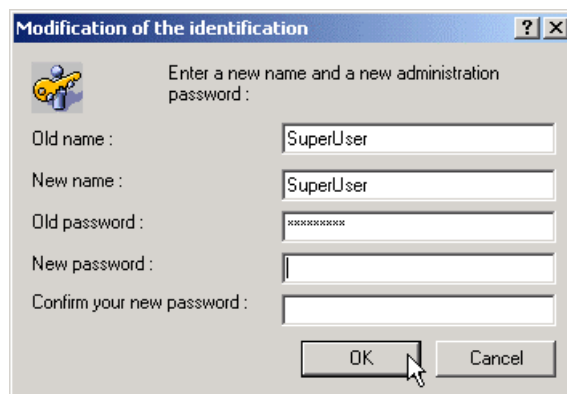
- 4.1. By using the OTS Manager tool, retrieve in the OTS server the agent declared in the PCX database as CCa

Start the OTS manager tool

Enter the OTS server hostname

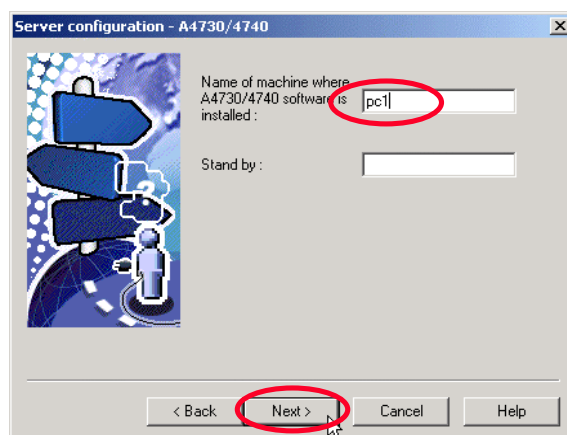


At first log on, the default password (SuperUser) must be changed

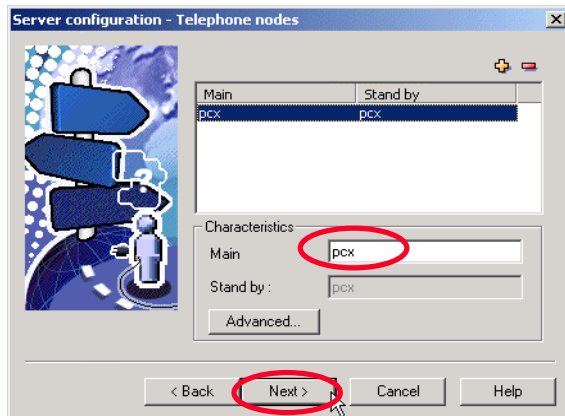


Then follow the procedure explained in the training courseware:

- Define the ACAPI server hostname

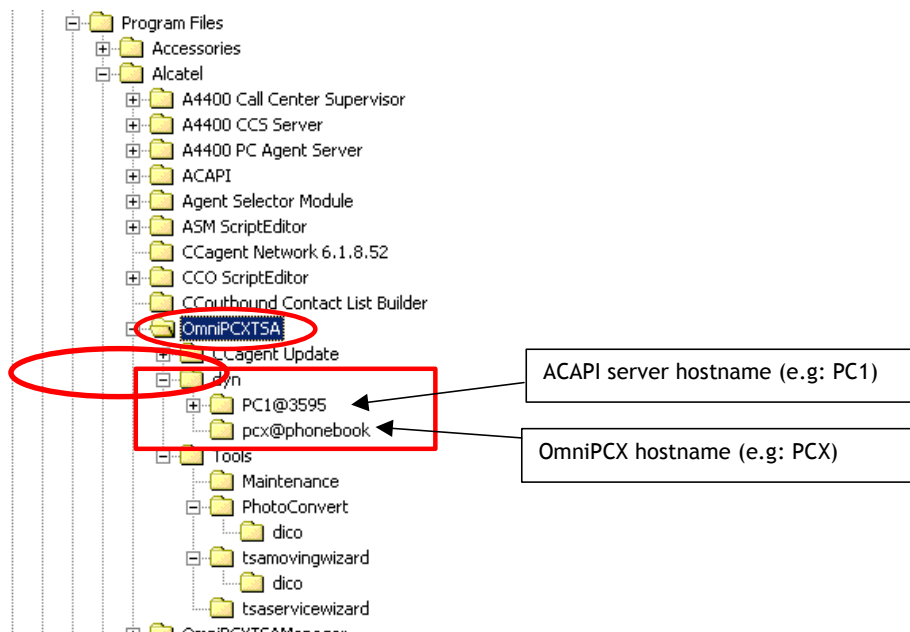


- Define the OmniPCX hostname



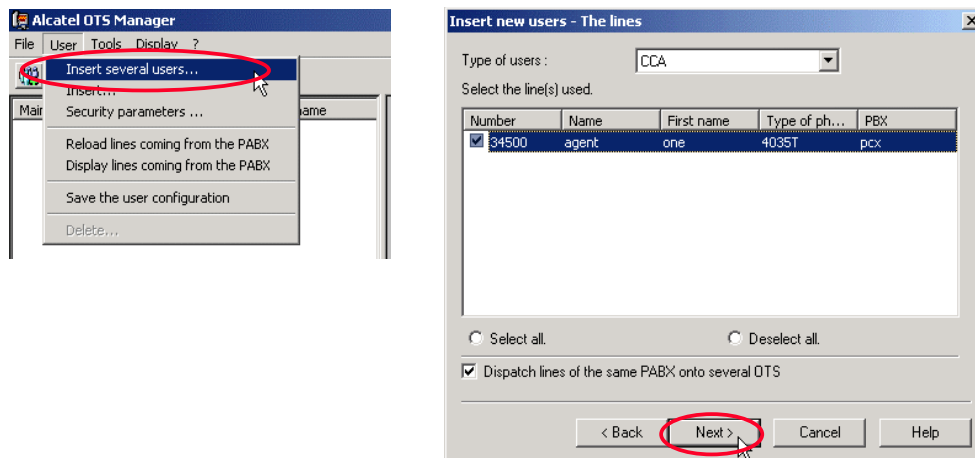
And restart the OTS Manager tool

If your management is correct the OTS server will download through ACAPI several objects from PBX (Phone book, user configuration) One per PBX



Then, import from the PCX database all the agents declared as “CCa agents”



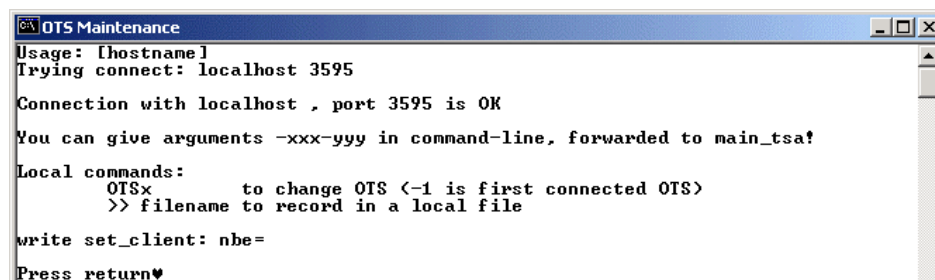


Don't forget to **SAVE** your management!!!!

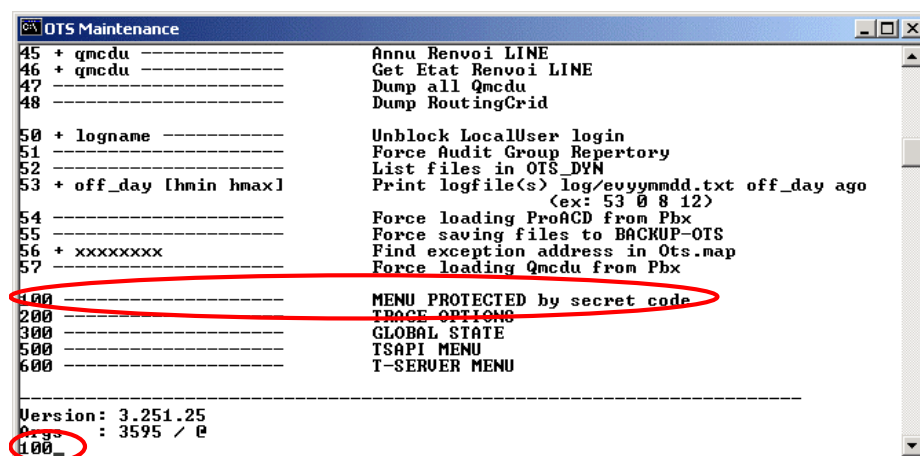
Note: If there is no Agent directory number in the list, you have to check the PBX management, or to force the automatic download (Synchronization of the OTS server /Pbx through the ACAPI).

For this manual download, run the "OTS maintenance" tool

Go to: "Start/Programs/Alcatel OmniPCX OTS/Maintenance/OTS Maintenance"



Press "return" and choose the menu "100"

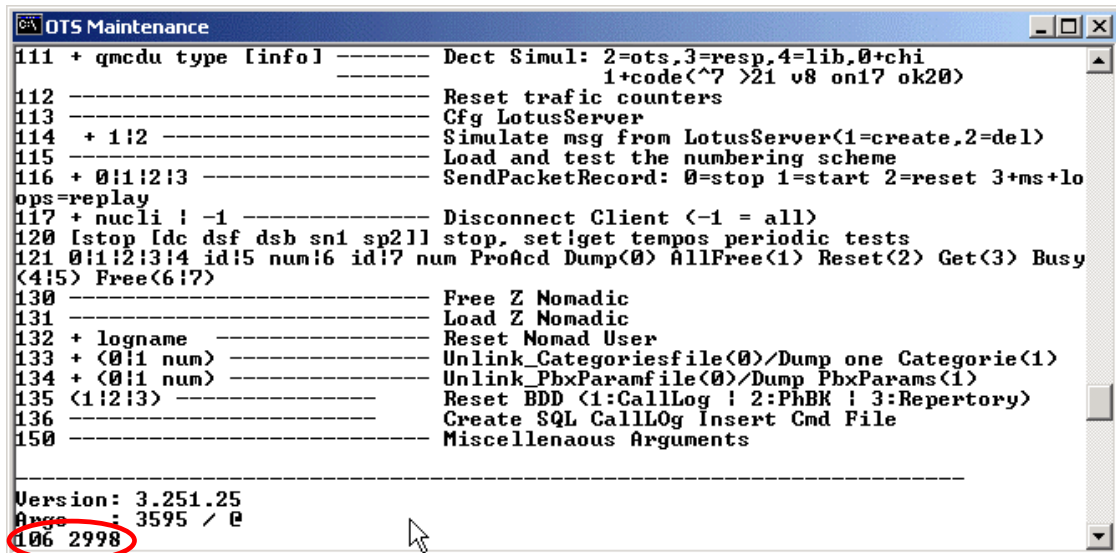


This menu (100) is protected by secret code (secret code = 2998)

This secret code value is stored in the OTS server, in the “parameters.txt” file located by default in: “C:/program

Files/Alcatel/OmniPCXTSA/dyn/”ACAPI_hostname”@3595/cfg”

Then use the option 106 + secret code

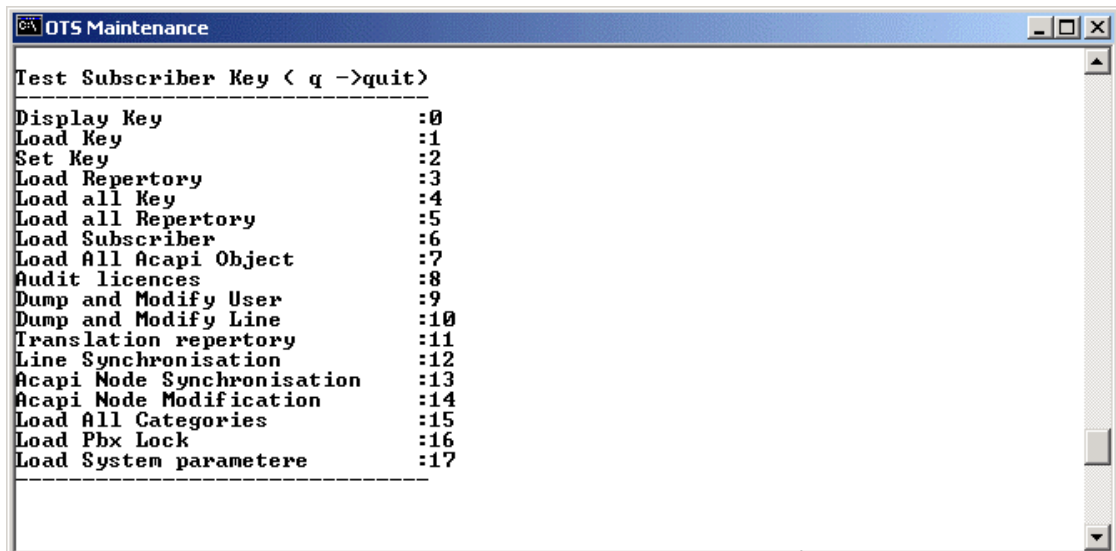


```

OTS Maintenance
111 + qmcdu type [info] ----- Dect Simul: 2=ots,3=resp,4=lib,0+chi
112 ----- 1+code<^? >21 v8 on17 ok20>
113 ----- Reset traffic counters
114 ----- Cfg LotusServer
114 + 1:2 ----- Simulate msg from LotusServer(1=create,2=del)
115 ----- Load and test the numbering scheme
116 + 0:1:2:3 ----- SendPacketRecord: 0=stop 1=start 2=reset 3+ms+lo
ops=replay
117 + nucli ! -1 ----- Disconnect Client (-1 = all)
120 [stop ldc dsf dsb sn1 sp2]] stop, set!get tempos periodic tests
121 0:1:2:3:4 id:5 num:6 id:7 num ProAcid Dump(0) AllFree(1) Reset(2) Get(3) Busy
(4:5) Free(6:7)
130 ----- Free Z Nomadic
131 ----- Load Z Nomadic
132 + logname ----- Reset Nomad User
133 + (0:1 num) ----- Unlink_Categoriesfile(0)/Dump one Categorie(1)
134 + (0:1 num) ----- Unlink_PbxParamfile(0)/Dump PbxParams(1)
135 (1:2:3) ----- Reset BDD (1:CallLog ! 2:PhBK ! 3:Repertory)
136 ----- Create SQL CallLog Insert Cmd File
150 ----- Miscellaneous Arguments

-----
Version: 3.251.25
Args: 3595 / 0
106 2998
  
```

And a menu will appear; then you can choose the objects that you want to synchronize manually (example: **option 7: Load all ACAPI object**)



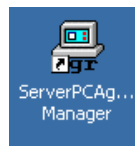
```

OTS Maintenance
Test Subscriber Key < q ->quit>
-----
Display Key :0
Load Key :1
Set Key :2
Load Repertory :3
Load all Key :4
Load all Repertory :5
Load Subscriber :6
Load All Acapi Object :7
Audit licences :8
Dump and Modify User :9
Dump and Modify Line :10
Translation repertory :11
Line Synchronisation :12
Acapi Node Synchronisation :13
Acapi Node Modification :14
Load All Categories :15
Load Pbx Lock :16
Load System parametere :17
-----
  
```

An automatic synchronization will be done every day at 1H30mn (check the value of the “time_acapi_reload” parameter defined in the “parameters.txt” file located by default in: “C:/program

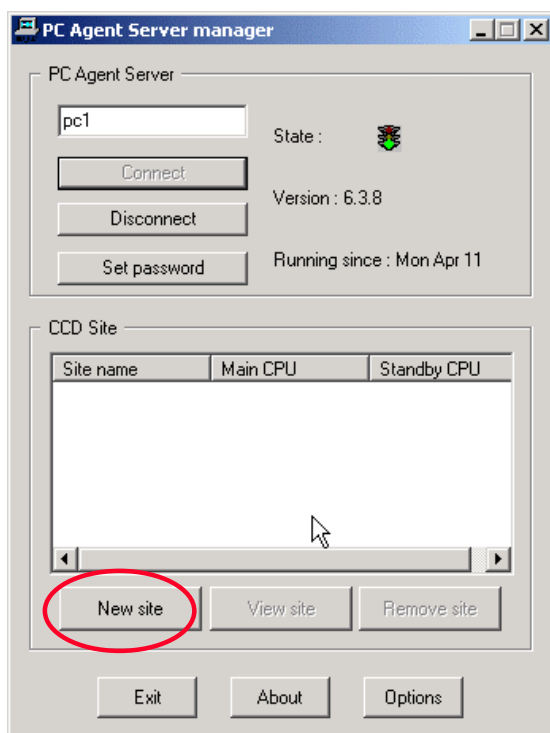
Files/Alcatel/OmniPCXTSA/dyn/”ACAPI_hostname”@3595/cfg”)

- 4.2. By using the PC agent server Manager tool, set up the connection between the PCX and the PC agent server

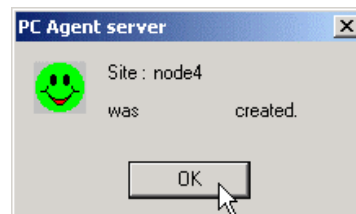
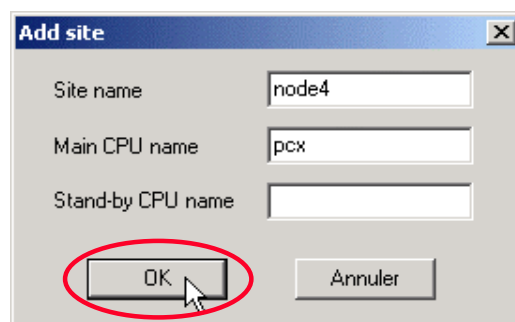


Start the PC agent server Manager tool

Set up a connection with the PC agent server (password = alcatel)



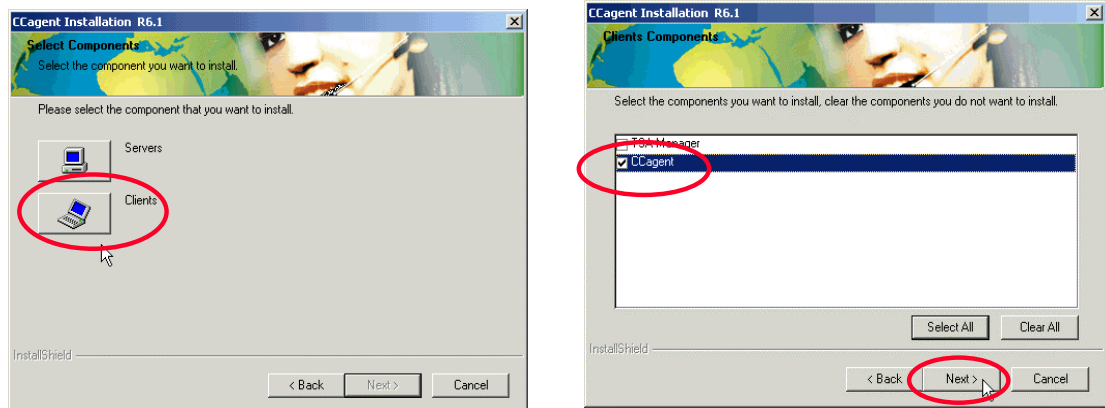
Add a new site



5. CCa client

5.1. Install the CCa client software (Use “typical” installation)

Run « set-up.exe » from the root directory

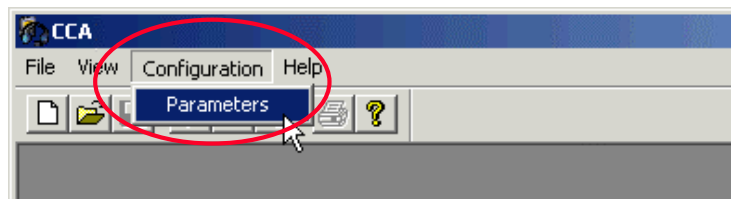


5.2. Start the CCa client: specify the mandatory parameters (log on set number, server name, port number...)

Start / Programs / Alcatel / CCagent / CCagent



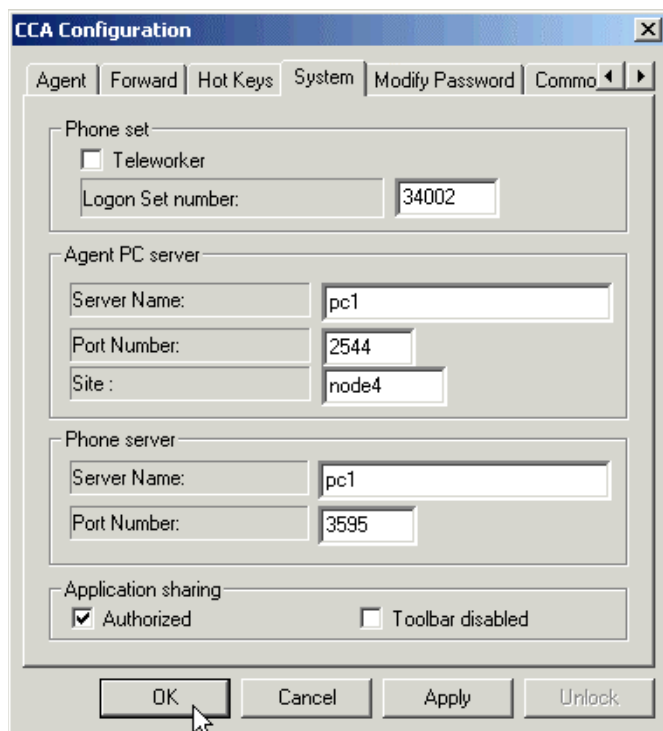
Configure the mandatory parameters



Specify the “ACD authorized phone set” directory number
Specify the hostname of the PC agent server (keep the default port number:2544)
Specify the “Site” name (PCX name declared in the PC agent server manager tool)
Specify the hostname of the OTS server (keep the default port number:3595)

Try to log on from the CCa client

- Enter your agent number

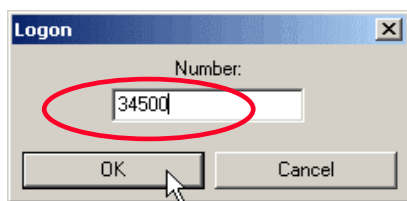


The CCA Configuration dialog box has several tabs: Agent, Forward, Hot Keys, System, Modify Password, and Commo. The Agent tab is selected. It contains the following fields and options:

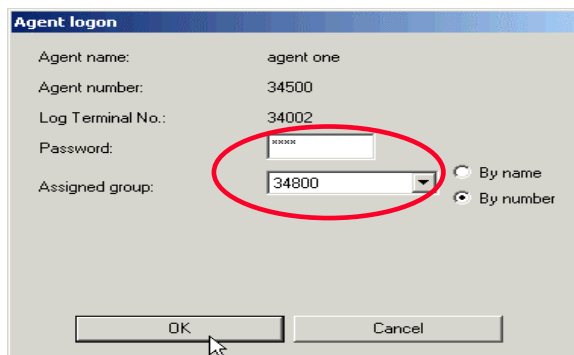
- Phone set:**
 - ☐ Teleworker
 - Logon Set number: 34002
- Agent PC server:**
 - Server Name: pc1
 - Port Number: 2544
 - Site: node4
- Phone server:**
 - Server Name: pc1
 - Port Number: 3595
- Application sharing:**
 - ☒ Authorized
 - ☐ Toolbar disabled

Buttons at the bottom: OK, Cancel, Apply, Unlock.

- Enter your password
- Enter your PG number

The Logon dialog box has a single text field labeled 'Number:' containing the value '34500'. The field is circled in red. Buttons at the bottom: OK, Cancel.



The Agent logon dialog box contains the following fields and options:

- Agent name: agent one
- Agent number: 34500
- Log Terminal No.: 34002
- Password: [masked]
- Assigned group: 34800 (dropdown menu, circled in red)
- By name (radio button)
- By number (radio button)

Buttons at the bottom: OK, Cancel.



Alcatel-Lucent OmniTouch Contact Center Standard Edition

CCd Expert



Part 2/2

PARTICIPANT'S GUIDE

DOCUMENT CHANGES

Alcatel-Lucent OmniTouch Contact Center Standard Edition CCd Expert

File reference: OTCCTE802US

Issue	Date	Issue	Date
01	04/08		
02	07/08		

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FEEDBACK SHEET

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CHAPTER	PAGE	DESCRIPTION

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Alcatel-Lucent OmniTouch Contact Center Standard Edition



Contact Center Agent Features



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1

OBJECTIVES

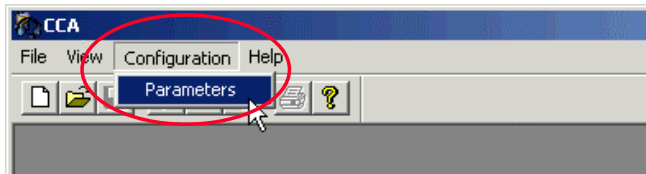
- ◆ To configure the CCa parameters
 - System configuration
 - “System” tab
 - “Modify password” tab
 - “Common” tab
 - “Optional services” tab
 - “Mail configuration” tab
 - User configuration
 - “Agent” tab
 - “Forward” tab
 - “Hot keys” tab
 - “Nomadic” tab
- ◆ To use the different CCa tools bars
 - Agent status / PG status
 - Call status
 - Service bar
 - Telephone bar

■ CCagent overview

- The PC Agent consists in a CCagent software installed on a PC micro processor. It's not directly linked to the OmniPCX, but is connected to three servers through an Ethernet link:
 - ACAPI server: management server
 - OTS server: phone server
 - PC Agent server: statistical server
- Main functions are as follow:
 - Agent phone operations (log on, log off, wrap up, withdrawal, dialing...)
 - Call status and progress display:
 - Agent statistics display
 - Processing group statistics display
 - Partners status display
 - Post-it notes support
 - Access to LDAP, 4755... directories
 - Remote agent (Nomadic services)
 - Links with applications through DDE or OLE

■ CCa client configuration

- Run CCagent:
 - Start / Programs / Alcatel / CCagent / CCagent
- The CCa configuration window opens:



- From the menu, select Configuration, then Parameters

■ CCa client configuration

- The CCa configuration can be divided in two parts:

- System configuration:

- “System” tab
- “Modify password” tab
- “Common” tab
- “Optional services” tab
- “Mail configuration” tab
- All these panels can be protected (locked) with a password

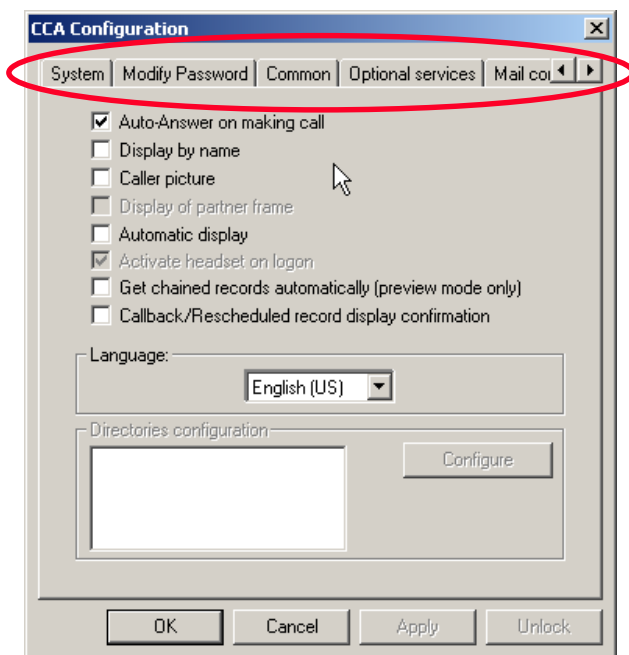
- User configuration:

- “Agent” tab
- “Forward” tab
- “Hot keys” tab
- “Nomadic” tab
- These panels are specific to an agent

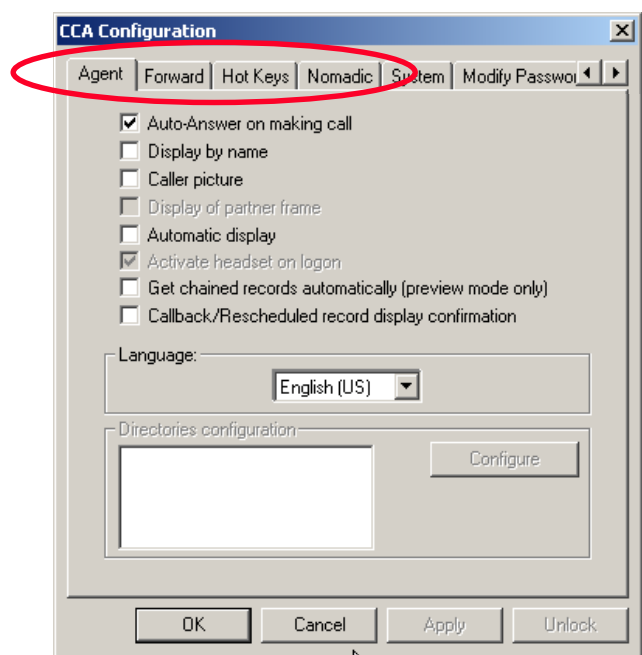
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« System » configuration tabs



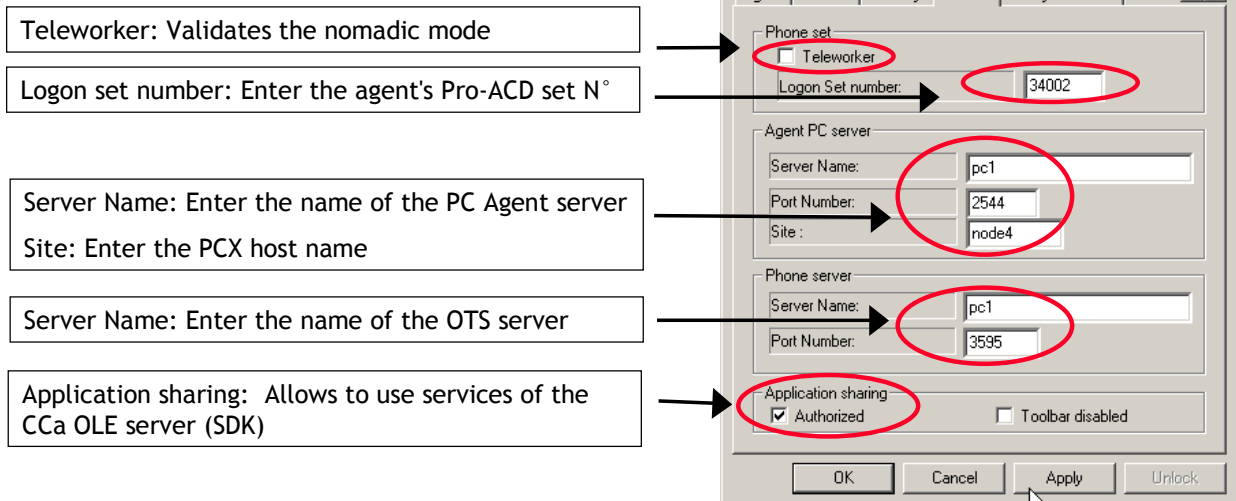
« User » configuration tabs



■ CCA client configuration

□ System configuration:

- "System" tab



The diagram illustrates the configuration fields in the 'CCA Configuration' dialog box, specifically the 'System' tab. Arrows point from descriptive text boxes on the left to the corresponding fields in the dialog:

- Teleworker:** Validates the nomadic mode. Points to the ☐ Teleworker checkbox.
- Logon set number:** Enter the agent's Pro-ACD set N°. Points to the Logon Set number text box (value: 34002).
- Server Name:** Enter the name of the PC Agent server. Points to the Server Name text box (value: pc1) in the Agent PC server section.
- Site:** Enter the PCX host name. Points to the Site text box (value: node4) in the Agent PC server section.
- Server Name:** Enter the name of the OTS server. Points to the Server Name text box (value: pc1) in the Phone server section.
- Application sharing:** Allows to use services of the CCA OLE server (SDK). Points to the ☒ Authorized checkbox.

Other visible fields in the dialog include Port Number (2544 for PC server, 3595 for Phone server) and a 'Toolbar disabled' checkbox.

The various fields described below cannot be modified if the agent is nomadic and logged

• "Phone set"

- "Home Worker": Validates the nomadic mode, in that case the TSA will dynamically attribute a pro-ACD number at logon.
- "Logon set number": Pro-ACD number on which the agent logs on.

• "PC Agent server"

- "Server Name": Name of the SPCAG host system.
- "Port Number": TCP port number used by the SPCAG, 2544 by default
- "Site": Name of the site entered in the SPCAG data to access the PABX

• "Phone server"

- "Server Name": Name of the TSA host system
- "Port Number": TCP port number used by the TSA, 3595 by default

• "Application coupling"

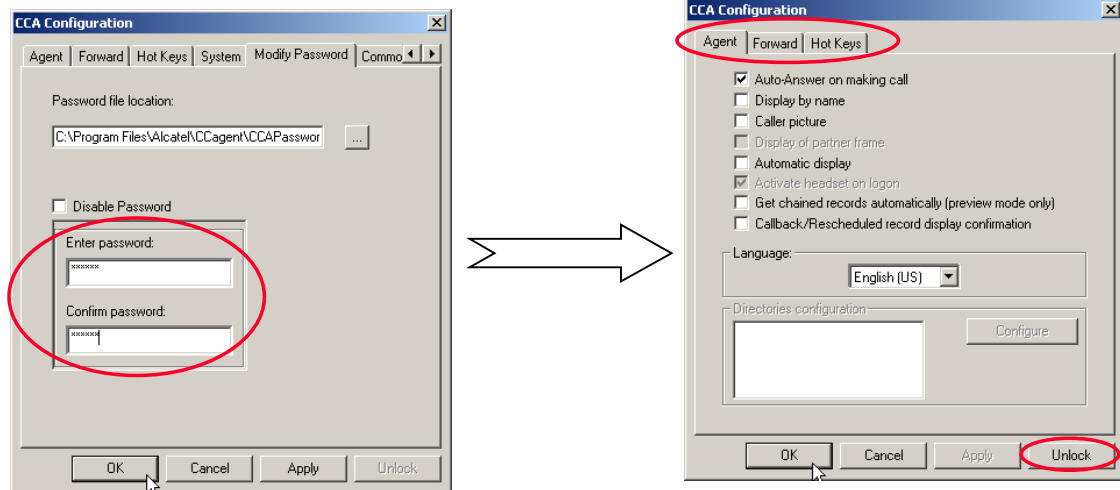
"Authorized": Allows a client application to use services of the CCA OLE server

■ CCA client configuration

□ System configuration:

- “Modify password” tab

- A password allows you to lock or unlock the “system configuration” tabs



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“Password file location:”

Contains the path and the name of the back up file for the system password. Preferably choose a shared directory accessible by all CCagent stations.

“Disable Password”

Activating this choice and validating it by entering the current password gives authorization to display the systems panels by default when accessing the CCagent configuration.

■ CCA client configuration

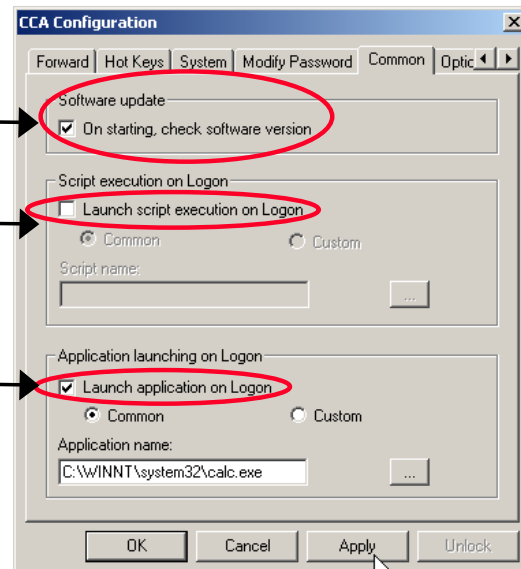
□ System configuration:

○ "Common" tab

Software update: automatic update in case of different software version between the CCA client and the CCA server

Script execution on Logon: activate a script at Logon

Application launching on Logon: activate an application at Logon

"Software update"

- "On start, check software version": Validates checking the CCagent version in regard to the one available for loading on the OTS. The CCagent software update will then be automatic

"Script execution on Logon"

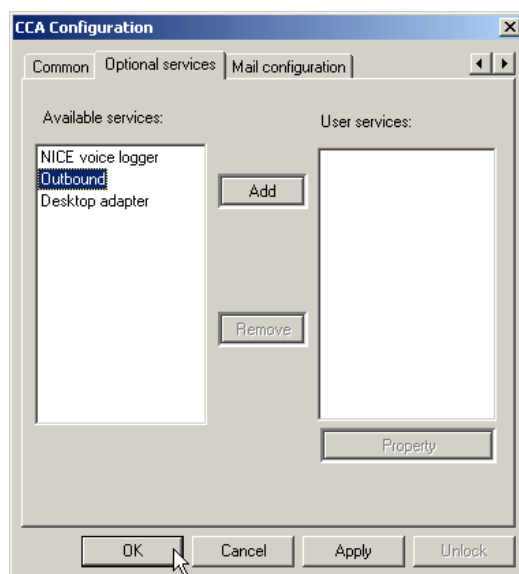
- "Launch script execution on Logon": Validates the Visual Basic script execution when the agent logs on
- "Common": In this case the script is copied from the server to the CCagent when connecting
- "Custom": In this case the script is the one specified in "Script name:". The "Browse" key helps you to find the application .

"Application launching on Logon"

- "Launch application on Logon": Activates the launching of an application when the agent logs on
- "Common": The same application is launched by several agents, the path and name are stored on the server
- "Custom": Each agent can specify which application will be launched , the path and name are stored in the personal datas.
- "Application name:": Path and name of the Windows application to be executed. The "Browse" key helps you to find the application

■ CCA client configuration

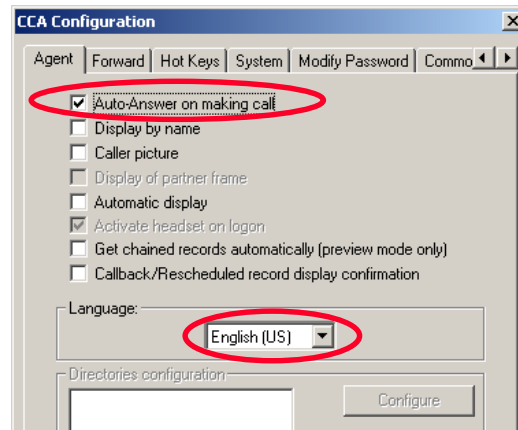
- System configuration:
 - “Optional services” tab
 - Use to validate some services as CCoutbound, Nice recorder...



■ CCA client configuration

□ User configuration:

- "Agent" tab
- Auto Answer on making call: Activating this parameter enables agents to avoid off-hooking when they make calls from their set
- Language: Select the CCA interface user language from the scrolling menu



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"Auto Answer on making call"

If this box is validated, an answer to the call will be automatically generated when making a call. If the check box is not validated, the "Answer" key will be displayed in the phone tool bar at the time of an outgoing call

"Display by name"

If this box is checked, the name of the agent will be displayed in the statistics bar instead of its QMCIDU

"Caller picture"

Validates displaying the picture of each person associated to the call

"Displaying partner frame"

If this option is checked, the partner window will be used for groups supervision

"Displaying automatic"

If this box is checked the CCagent main bar will be iconized or automatically displayed according to the type of operation in progress. Example, a call is coming up, the CCagent main bar (if it was iconized) automatically comes up on the foreground

"Set headset on logon" : This box is validated only if the agent has right to headset . If checked, the headset is set on logon

Get chained records automatically: used for CCo

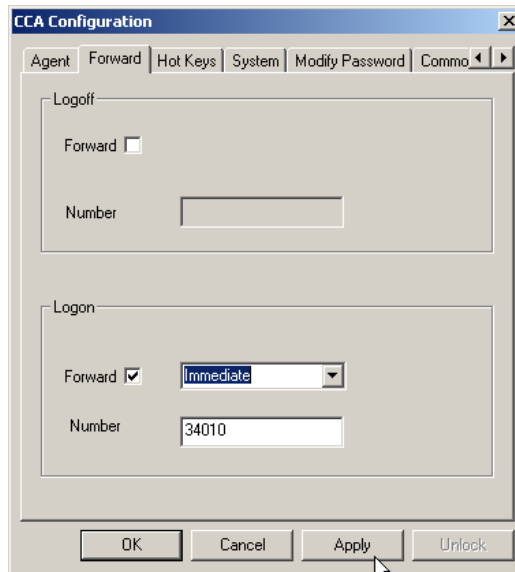
Callback/rescheduled record display confirmation: used for CCo

"Language:" Selecting the current language

"Directories configuration" : Lists all available directories. The "Configure" key lets you access customization of the selected element

■ CCA client configuration

- User configuration:
 - "Forward" tab



- Note: Forwards programmed in this panel are only set up if Logon/Logoff is done by the CCagent

Note: Forwards programmed in this panel are only set up if Logon/Logoff is done by the CCagent.

"Logoff"

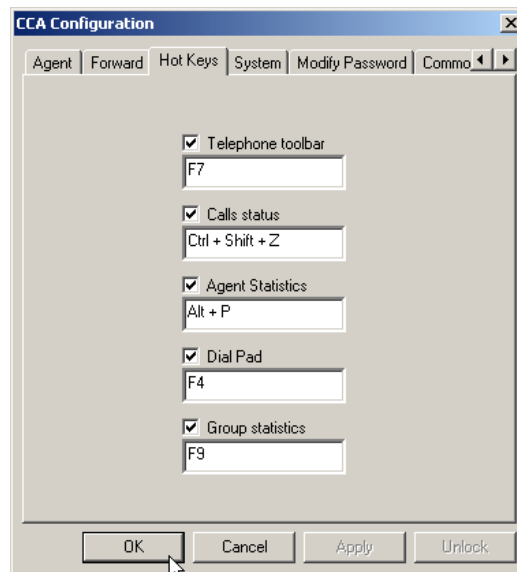
- "Forward": Activates the forward to the Logoff
- "Number": Number to which the forward is directed

"Logon"

- "Forward": Activates the forward to the Logon
 - "Immediate"
 - « Busy
- "Number": Number to which the call is directed

■ CCA client configuration

- ☐ User configuration:
 - “Hot keys” tab

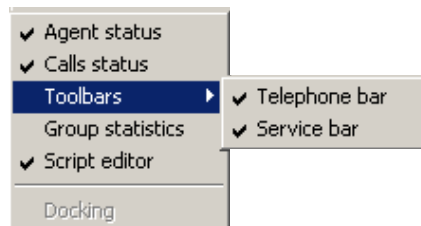


- ☐ Pressing on the key or a combination of keys defined in the following field lets you toggle the viewing status of the chosen bar

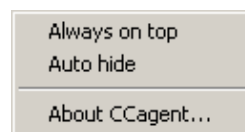
- "Phone bar"
- "Calls status"
- "Agent Statistics"
- "Dial Pad"
- "Statistics group"

If a box is checked, pressing on the key or a combination of keys defined in the following field lets you toggle the viewing status of the chosen bar

- Each bar can be:
 - separated
 - hidden / visible



- The CCa tool bar can be dragged and dropped on the screen
 - Same feature as the “task bar of Windows”
 - Display functionalities are possible:
 - ☐ Auto hide
 - ☐ Always on top



- The CCa tool bar has got a new look with re-designed icons for function keys

The anchoring window for display and tool bars is a window where one or several bars can be gathered .

The "Agent status" display bar:

it displays data concerning the agent status and lets you view its statistics. For more details, check under the heading "Agent status" display bar.

The "Calls status" display bar:

it displays data concerning the agent calls status. For more details check under the heading "Calls status" display bar.

The "Phone bar" tool bar:

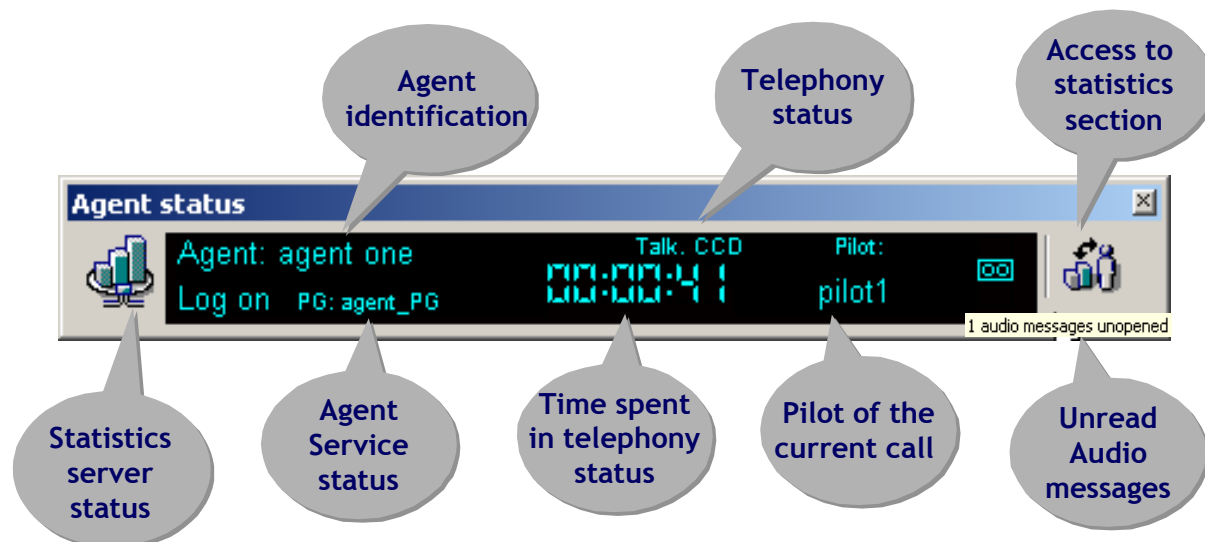
It lets you generate phone actions. For more details, see under the heading The "Phone bar" tool bar.

The "Service bar" tool bar:

It lets you generate non phone services available:

■ The Agent Status bar provides

- Agent session details and status
- Access to Personal Statistics window of the agent



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Statistics server status:

The icon indicates the connection status between the CCagent and the statistics server. The color green indicates the link is established with the server, orange indicates the link with the PCX is interrupted and red, the connection with the statistic server is ended.

Agent service status:

The agent service status. Possible values are:

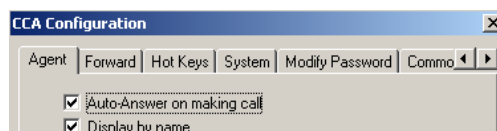
- "Log off": the agent is not connected
- "Log on without PG": the agent is connected but is not assigned to any PG
- "Log on PG: XXXXX" the agent is connected and assigned to a PG which number is XXXXX
- "Log On withdrawal": the agent is connected and assigned to a PG but is withdrawal.

Logged agent number:

The QMCDU number of the connected agent. If the agent is not connected this information is not visible.

The name can be displayed instead of the agent number; in the script editor window, go to Configuration / parameters

Select the "Agent" tab and validate the parameter: "Display by name"

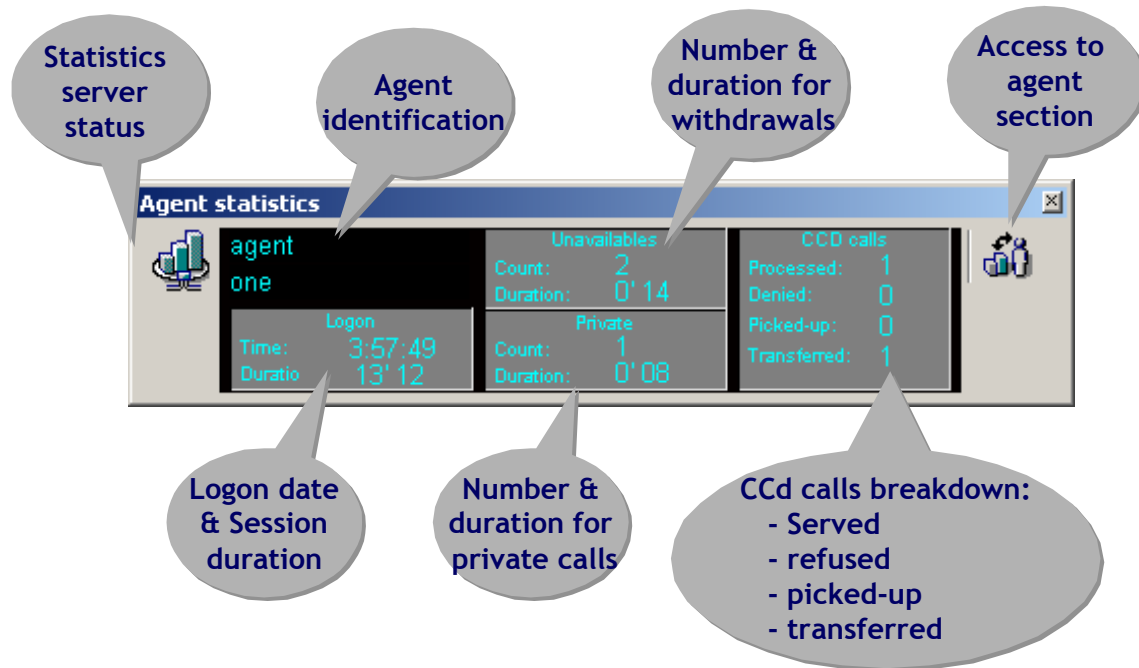


Agent phone status :

The phone status of the agent when connected. Possible values are:

- "Idle": the agent is available.
- "Rung. ACD": the agent is in ACD ringing.
- "Talk. ACD": the agent is in an ACD call.
- "Help ACD": the agent is in help request.
- "Transaction": the agent is dialing a transaction code on his set.
- "Pause": the agent is in pause between two ACD calls.
- "Wrap up": the agent is in Wrap-up.and so on

- The Agent Statistics bar provides information about the performance of the logged agent



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Statistics server status:

This icon indicates the connection status between the CCagent and the statistics server. The color green indicates the link is established with the server. The color orange indicates that the link with the PCX is interrupted and red indicates the connection with the statistic server is ended.

Agent last name: The last name under which the agent is known in the ACD.

Agent first name: The agent's first name. If it is unknown this field will not come up.

Log on time: The time at which the agent got connected . It is updated every second.

Log on duration:

Time gone by, since the agent got connected. The display format is "hh:mm:ss" when the duration is below 24 hours. In this instance the update is done every seconds. If the duration is above 24 hours, the display format becomes "X day(s)".

Number of withdrawals: The amount of withdrawals the agent made since logging on.

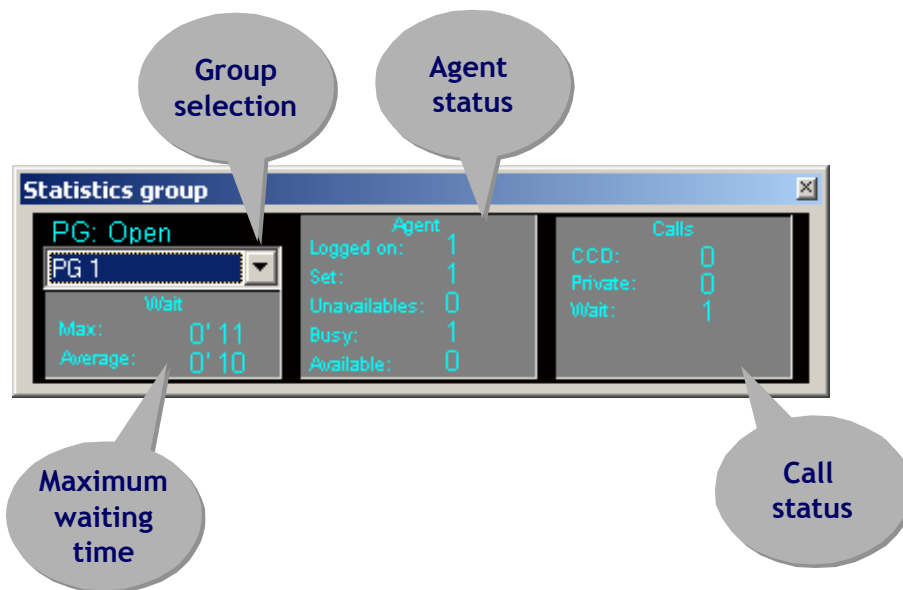
Withdrawals duration: The meter indicates time cumulation spent in withdrawal since the agent logged on. The update is done every seconds.

Number of private calls: The amount of private calls (incoming and outgoing) made by the agent since his ACD connection.

Private calls duration: The meter indicates time cumulation spent in private calls. This is updated after each private call made by the agent.

Numbers of ACD calls served: The amount of ACD calls the agent answered since his ACD connection. This is updated after each call (ACD or other) made by the agent....

- The Statistics Group bar provides information about the performance of one CCd processing group
















■ The Telephone Bar of the CCa

- It allows to generate phone actions from the agent set
- The phone commands keys enable the agent to handle phone operations as if using his own set
- Depending on the agent and set status some of the keys are hidden, visible, highlighted or valid. Some of those keys also have certain functions according to the agent or set status







■ Telephone Bar






▼ Base telephony	▼ 2nd call management
<div>Make Call </div> <div> Answer Call</div> <div> Hold/retrieve</div> <div> Hang-up</div>	<div>Enquiry</div> <div> Hang-up active call</div> <div> Conference</div> <div> Transfer</div> <div> Alternate (broker call)</div>
<div>▼ Miscellaneous</div> <div> DTMF</div> <div> Call Back request</div>	<div> Right to wait</div> <div> Redial</div> <div> Call recording</div>

■ Agent/supervisor phone bar






▼ **Status control**

-  Session control (logon/logoff)
-  Withdrawal control (go to/back from)
-  Wrap-up control (go to/back from manual wrap-up)
-  Start pause (session)

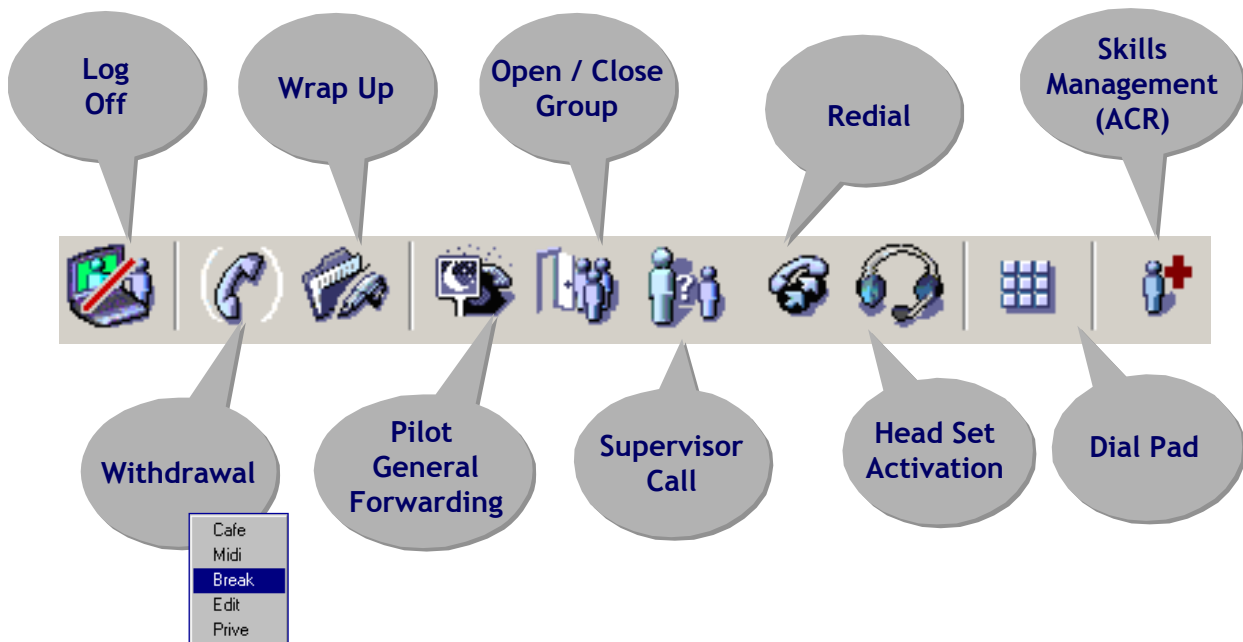
▼ **Agent features**

-  Supervisor call
-  Help
-  Group closing/opening
-  General forwarding activation
-  Headset

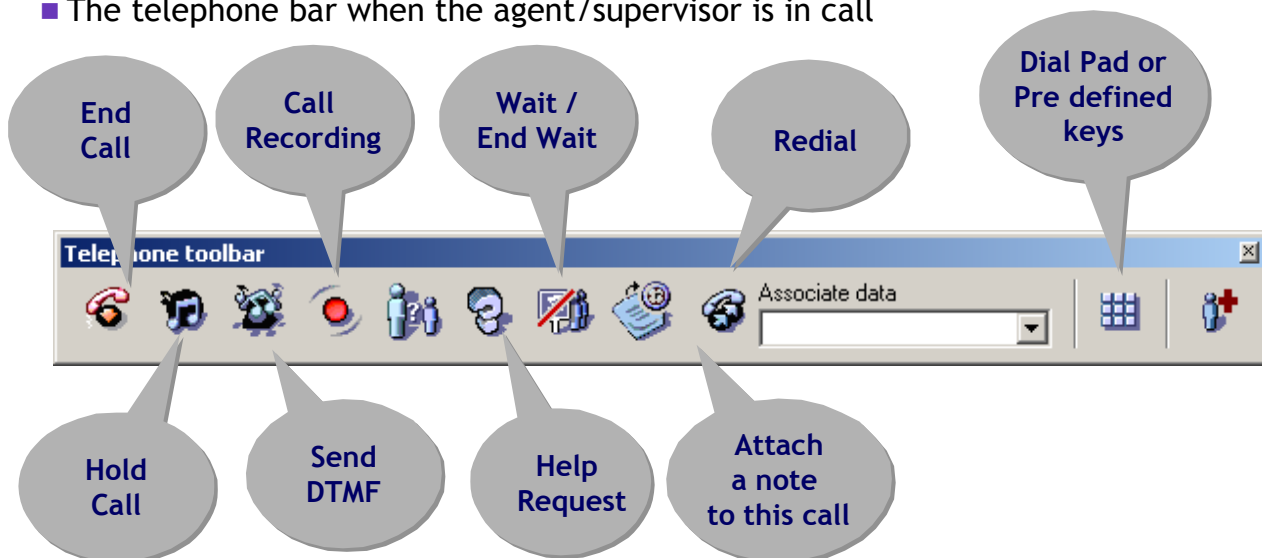
▼ **Supervisor features**

- | | |
|--|---|
|  Enter Group |  Listen |
|  Exit the Group |  Barge In |
| |  Restricted Barge In |

- The telephone bar when the agent/supervisor is in idle status



■ The telephone bar when the agent/supervisor is in call



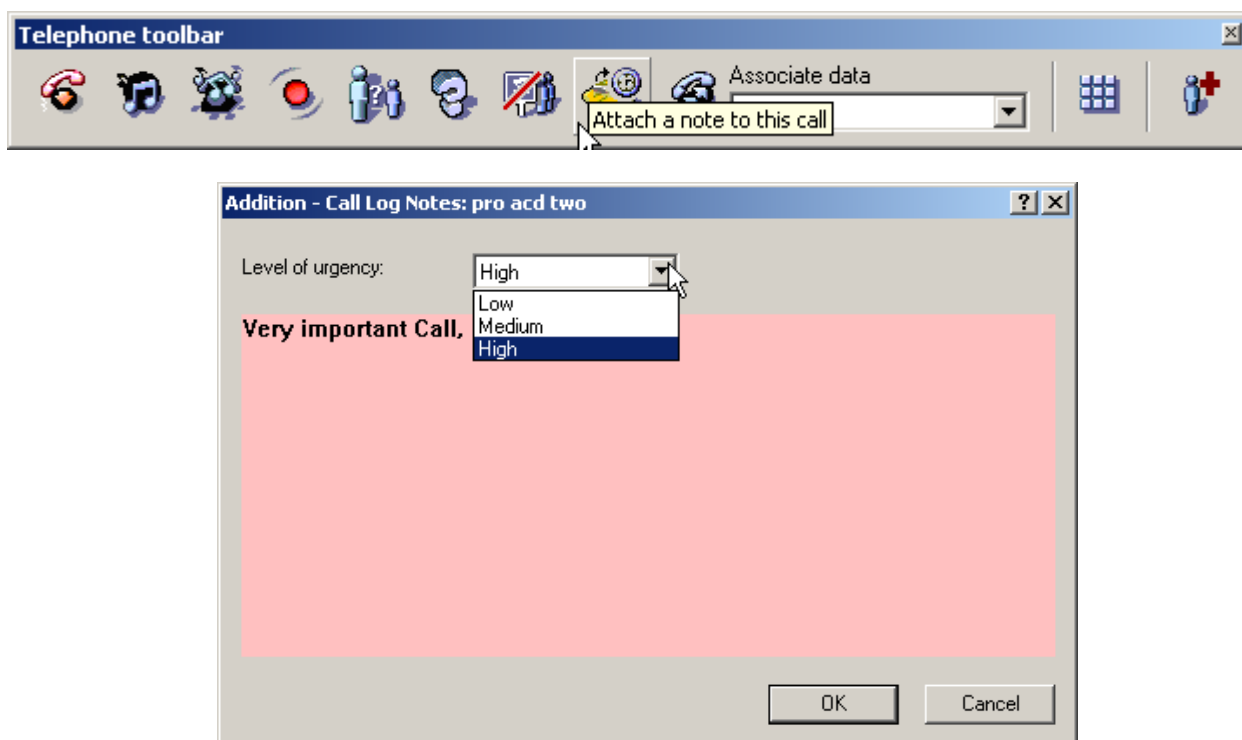
- It is possible to attach a note to a call in progress; this note can then be displayed by using the call log key



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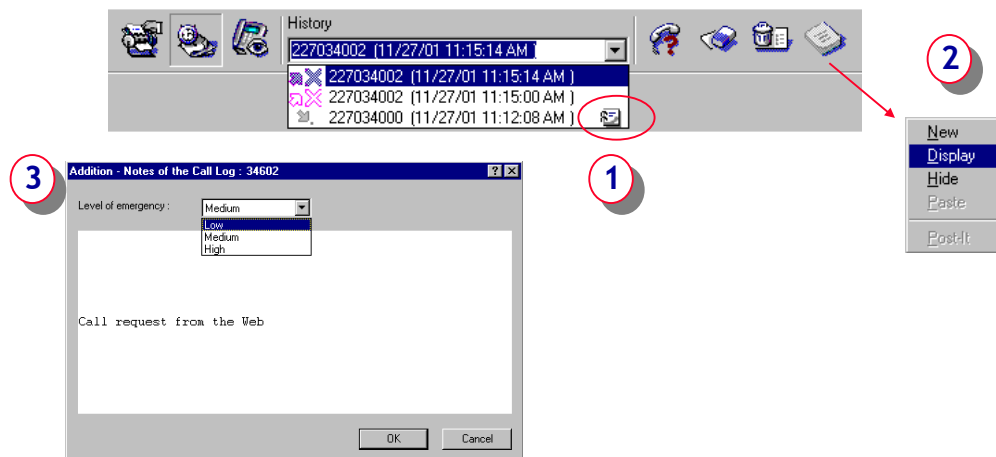
20

Post it key: This key lets the agent attach a post it note to the call in progress in the call log



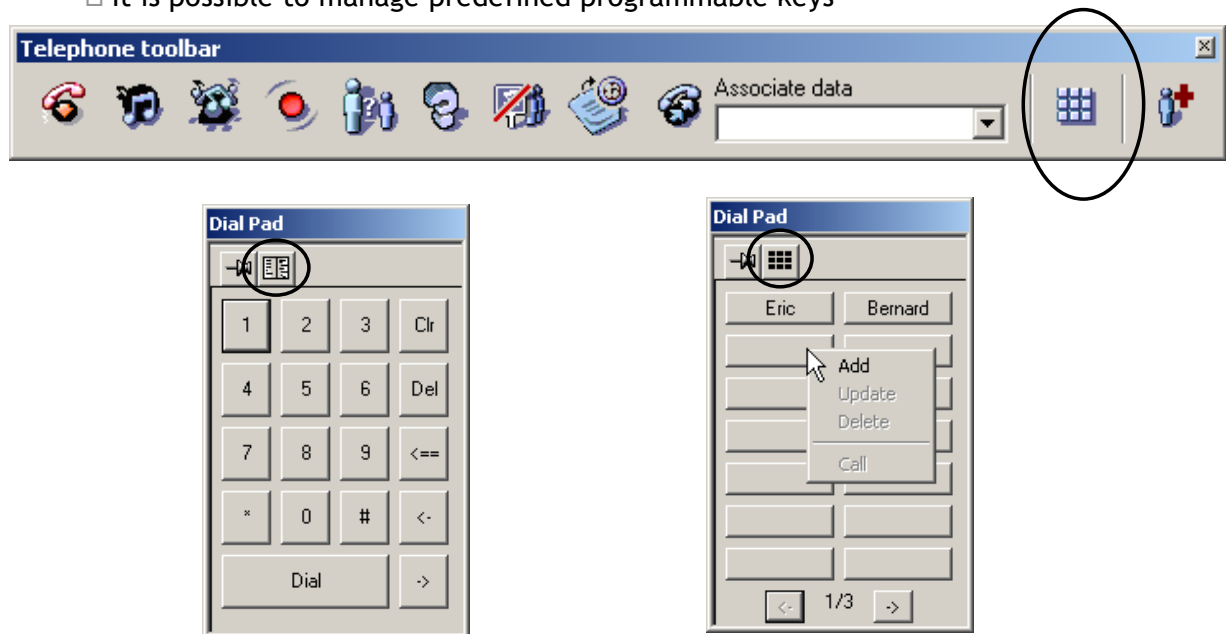
■ The note features

- Associate some personal notes to a call
 - Remind the content of the communication
 - The Post-it is accessible from the Call history window



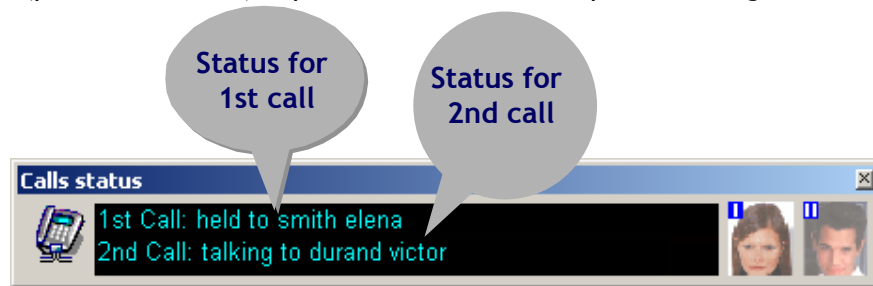
■ The telephone bar: Dial Pad

- This key displays the phone key pad on the screen
- It is possible to manage predefined programmable keys



■ Call status tool bar

- Follow -up of the two possible calls
- Display of the photos of the correspondent(s)
 - If photos are available for these correspondent
 - Photos are stored in the disk of the CCa server
 - A tool (photo converter) is provided to resize the photos to a given format



- Don't forget to validate the right parameter in the CCa client setting
 - Configuration / parameters / « Agent » tab



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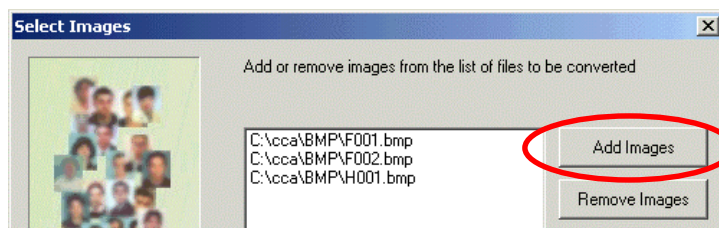
23

1. Create one bmp file for each correspondent (internal or external), this file will be used as photos by the CCa
2. Use the photo converter to load these pictures (e.g: F001.bmp and F002.bmp and H001.bmp)
3. The conversion of the XXXX.bmp will be done with a mapping file
 - Create a mapping file that defines the link between File .bmp and correspondent directory number
Example: mapping file named "test" defined as followed:

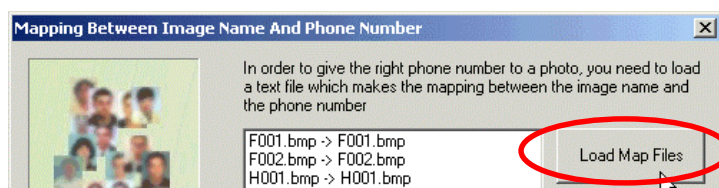
F001.bmp	34001
F002.bmp	298134002
H001.bmp	34010
 - Use the photo converter to generate the photo of the correspondents from the file *.bmp and with the mapping file defined previously

Run Start / Programs / Alcatel Omni PCX OTS /Photo Converter

- Then add BMP images files:



- Then select the mapping file, and load it from the Photo converter wizard



DON'T FORGET TO VALIDATE THE RIGHT PARAMETER IN THE CCa SETTINGS MANAGEMENT

Configuration / parameters / « Agent » tab



■ Service tool bar: One unique Bar for all services

- Directory key:



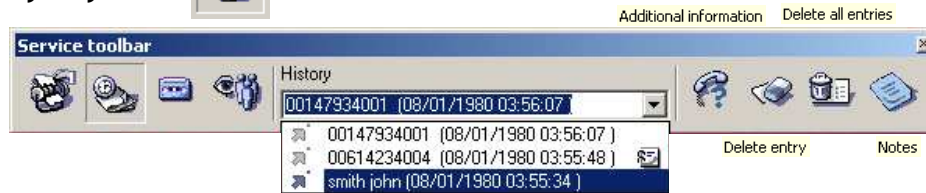
- It's possible to:

- ☐ Create a new entry in the agent personal phone book
- ☐ Modify an entry in the agent personal phone book
- ☐ Delete an entry in the agent personal phone book
- ☐ Delete all entries
- ☐ Associate a note to an entry



■ Service tool bar: One unique Bar for all services

- History key:



- By using this key, you can display the call history

- ☐ Additional information



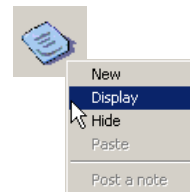
- ☐ Delete an entry



- ☐ Delete all entries

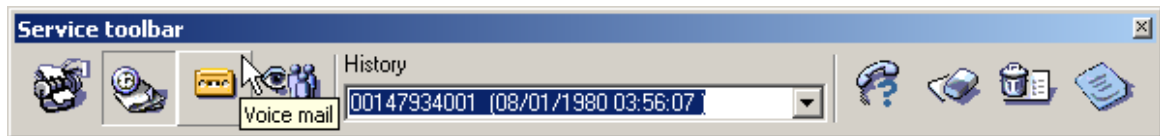


- ☐ Display (or create) a note associated to a call

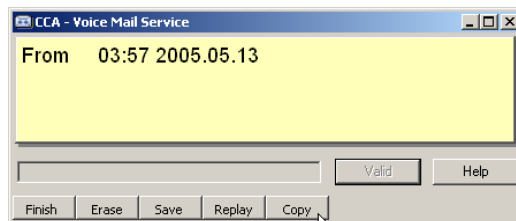
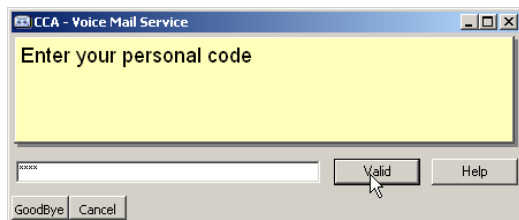


■ Service tool bar: One unique Bar for all services

- Voice mail access key:



- Messaging consulting is done through a specific interface
- The agent still listens his/her messages by using the phone set
- Message can be saved, deleted, copied, replayed from the CCa

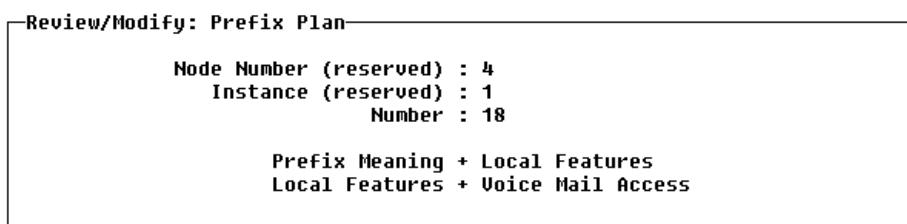


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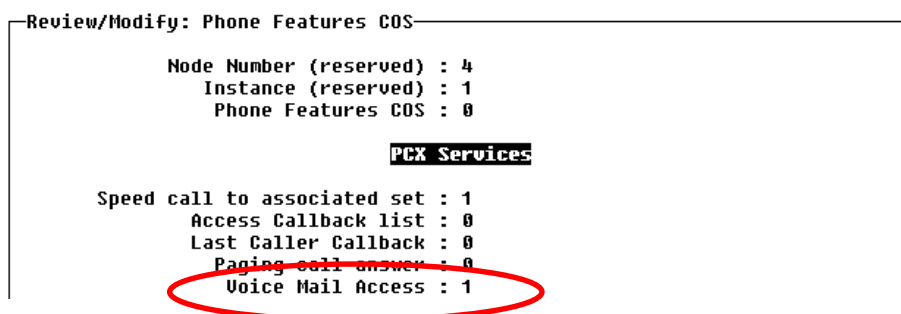
26

In order to be able to access to the voice mail through the CCa, you have to:

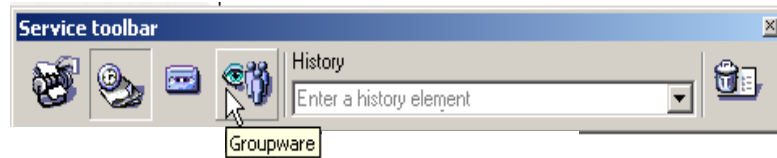
1. Create a prefix (local features /Voice mail access)



2. Validate this prefix in the agent phone COS



■ Service tool bar: One unique Bar for all services



● Groupware:

- ☐ Access to partner bar
- ☐ Display mode choice can be done in the "Agent" panel



● The partner bar shows in real time the availability within an agent group:

- ☐ Agent state (idle, ringing, busy, out of order, withdrawal, end of communication, pause)
- ☐ Actions: Call, leave a voice mail message, Association of a post it

- The partner bar is divided in two parts
 - One part for the current Processing Group of the Agent
 - One Part to display
 - An existing Processing group
 - A “team” that has been created in the Alcatel-Lucent OmniPCX OTS Manager tool
- Partner bar restrictions
 - An agent can belong to 3 groupware
 - An agent must belong to the groupware to display the other members of the group
 - An agent can display its processing group when he belongs to a team

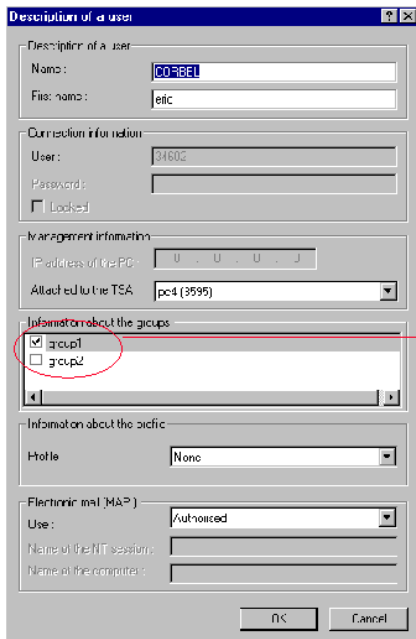
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Limits:

- 50 Groupware
- 40 agents per groupware
- An agent can belong to 3 different groupware.

When you create a new CCA Account , you can insert the new user in an existing Group (Team)

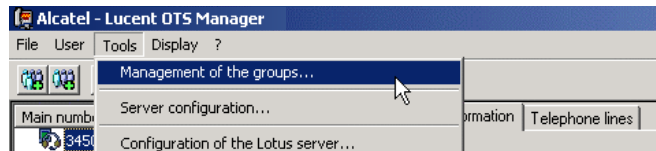


The screenshot shows a 'Description of a user' dialog box with several sections: 'Description of a user' (Name: CORBEL, First name: etc), 'Connection information' (User: 34602, Password: , Locked:), 'Management information' (Address of the PC: 0.0.0.0, Attached to the TSA: pc4 (3595)), 'Information about the groups' (group1 checked, group2 unchecked), 'Information about the profile' (Profile: None), and 'Electronic mail (MAP)' (Use: /autoexecuted). A red circle highlights the group list, and a red arrow points from it to a text box.

Existing Group Are listed, when
you are creating a new CCA
operator

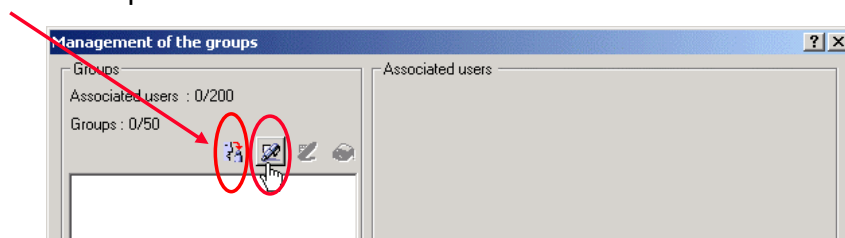
■ Group Management by using the OTS Manager tool

- Run OTS Manager tool and manage a group



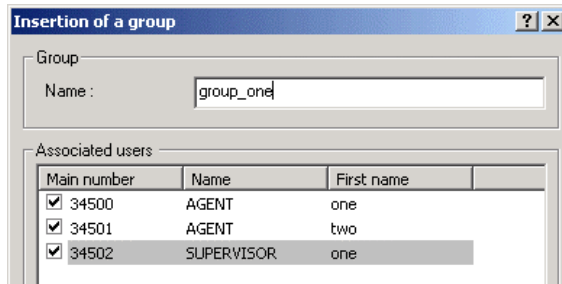
- Create a group

- ☐ 50 groups maximum
- ☐ PG can also be supervised



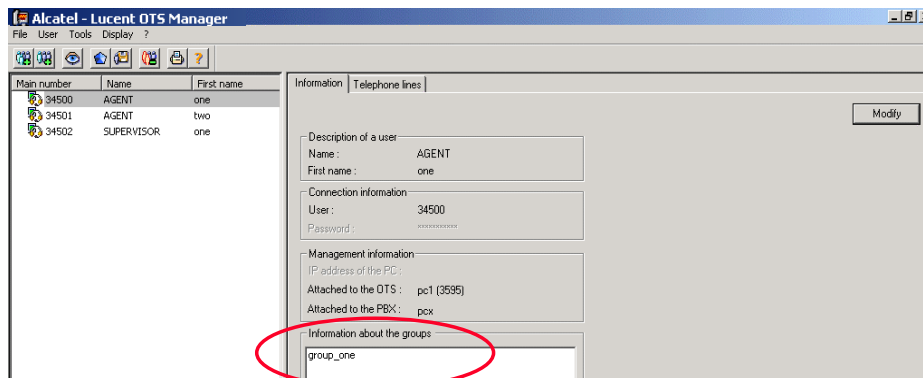
■ Group Management by using the OTS Manager tool

- Add the agents in the group



	Main number	Name	First name
<input checked="" type="checkbox"/>	34500	AGENT	one
<input checked="" type="checkbox"/>	34501	AGENT	two
<input checked="" type="checkbox"/>	34502	SUPERVISOR	one

- Check that the management has been taken into account



Main number	Name	First name
34500	AGENT	one
34501	AGENT	two
34502	SUPERVISOR	one

Information Telephone lines

Modify

Description of a user:
Name: AGENT
First name: one

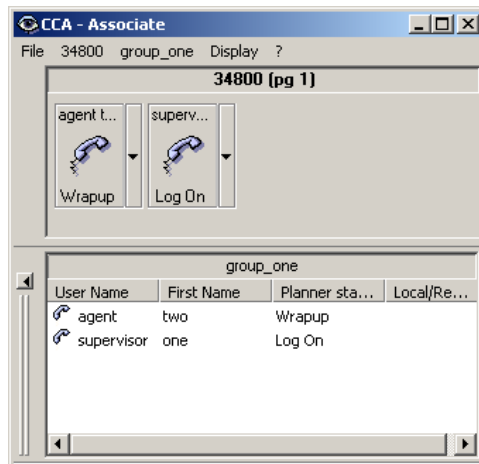
Connection information:
User: 34500
Password:

Management information:
IP address of the PC:
Attached to the OTS: pc1 (3595)
Attached to the PBX: pcx

Information about the groups:
group_one

■ Groupware features

- From the CCA, an agent is able to display information concerning:
 - The PG in which he is logged on
 - A team (created in the OTS Manager tool)

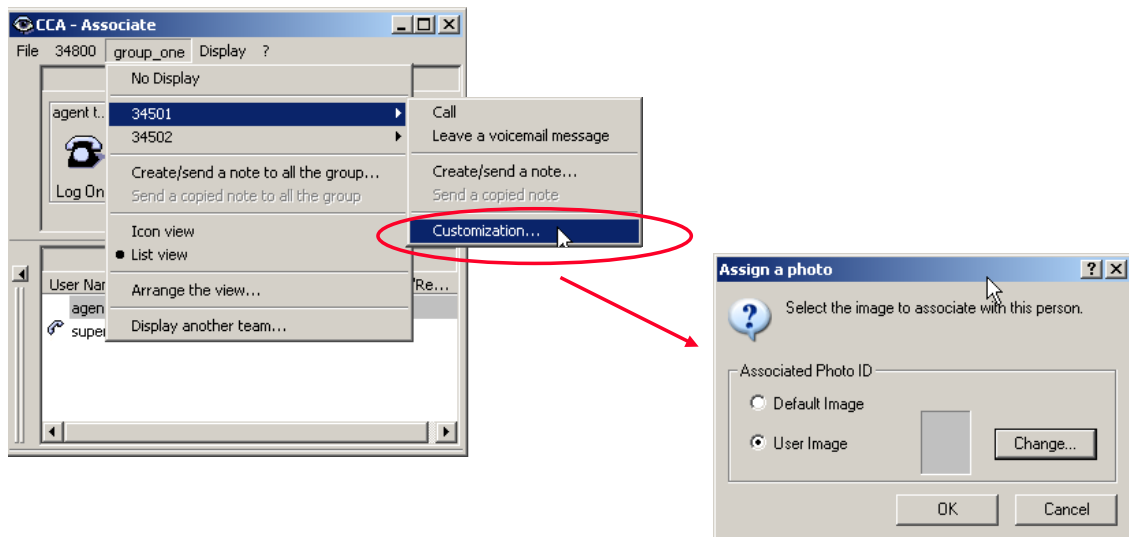


Icon view

List
view

■ Groupware features

- From the CCA, an agent is able to call a member of the group, to leave a voice mail message, to send a note or to associate a photo (customization)



■ Dialing

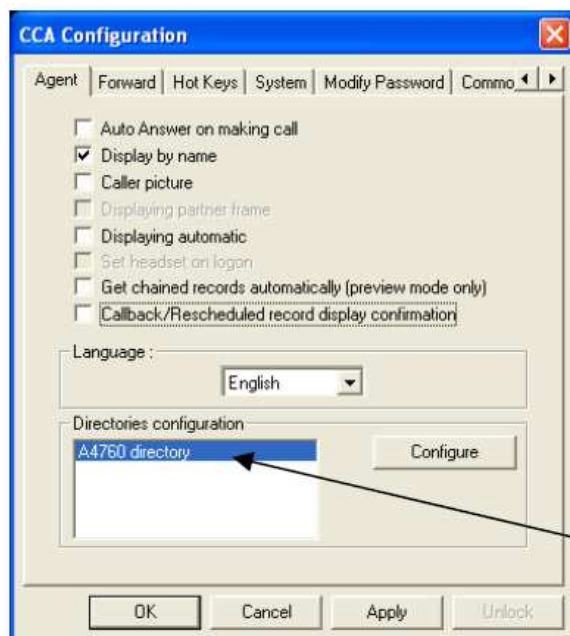
- Dialing can be done by name from:
 - LDAP directory (4760)
 - The OmniPCX phone book
 - The 4755 Directory
 - Any Directory compatible with the Alcatel-Lucent “directory generic API“...



- The used directories are specified in the CCA settings
 - Configuration/parameters
 - ◆ “Agent” tab

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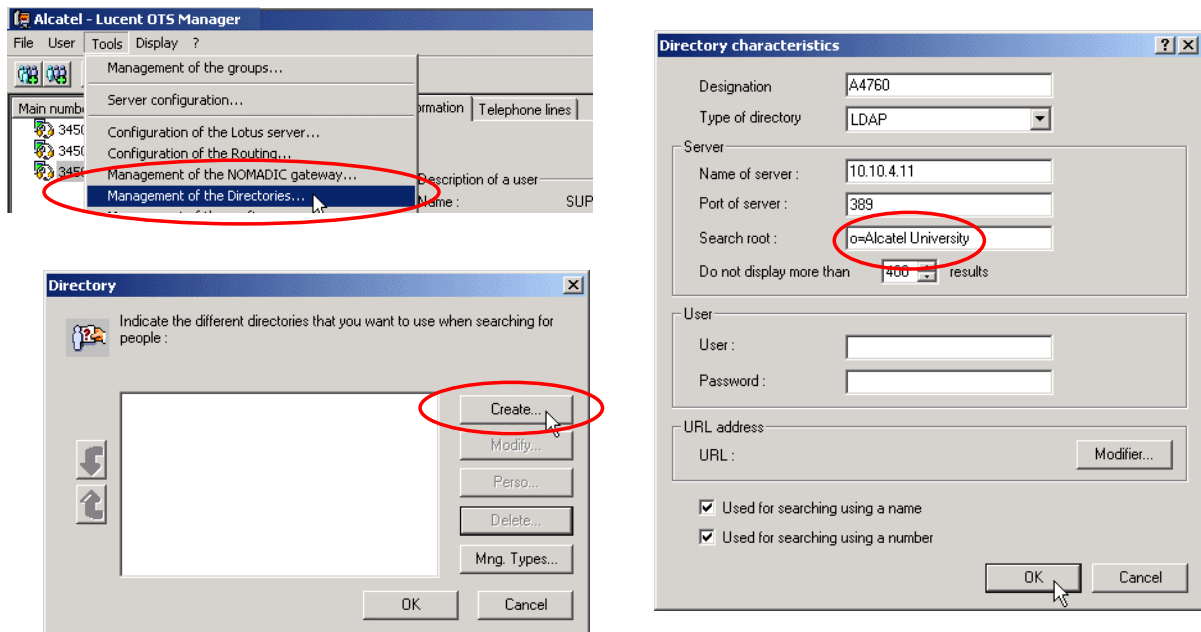
33



The designation of the directory should be here.

■ Directories

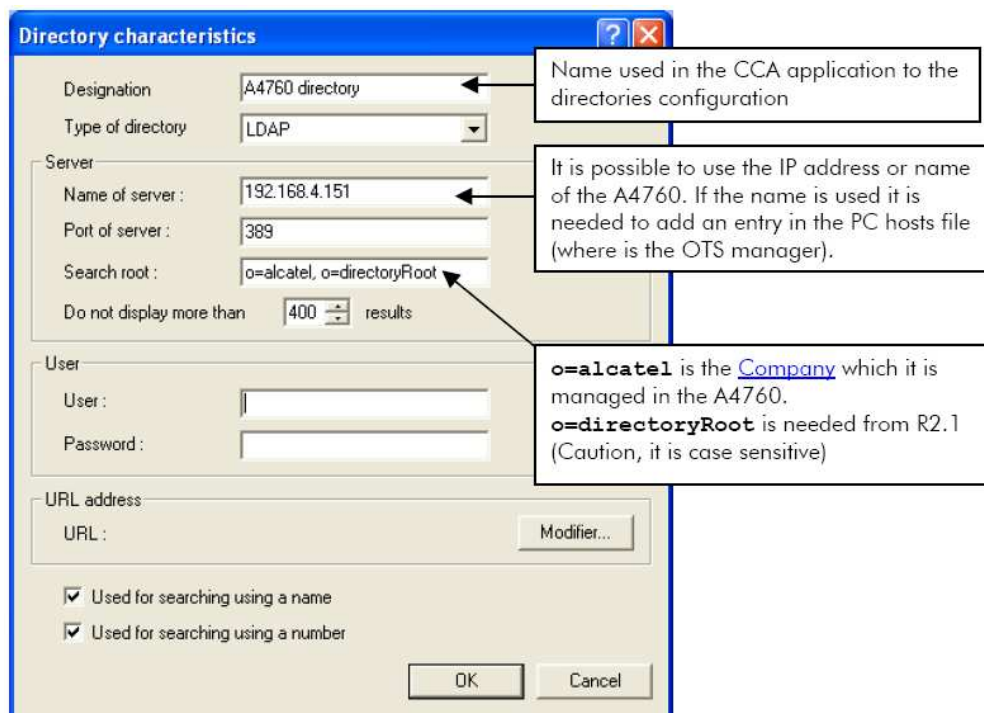
- Directories management by using the OTS Manager tool



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Caution:



■ A set of high level development tools to integrate with 3rd party applications

● Embedded development interface

- A development interface based on Visual Basic Language
- Customized treatments are triggered by Telephony events

● Openness to other third party developments

- NEW OLE interface
 - Easier to integrate thanks to high level objects
 - Compatible with the SDK version 1
- DDE interface (same as for V1)
 - To Integrate existing applications
- Active X On demand

■ Licenses

- CCa: license N° 115

- ☐ CCa server package includes the 5 first CCa agent licenses
- ☐ If there are more than 5 CCa agents, additional agents are sold by groups of 5 agents

- CCTI: license N° 189

- ☐ CCTI stands for “Call Center Telephony Interface”
- ☐ CCTI server package includes the 5 first CCTI agent licenses
- ☐ If there are more than 5 CCTI agents, additional agents are sold by groups of 5 agents

- CSTA BY-PASS: license N° 158 (free of charge)

- ☐ In the PCX, the license 158 is associated to the license “CSTA 500 BY-PASS”
- ☐ This license contains 500 By-PASS
- ☐ The different values for the lock 158 can be 0 / 500 / 1000 / .. 9000 (Max)

CSTA BY-PASS:

Supervising an object consists of transmitting via CSTA any telephone information concerning this object.

On the contrary, it is possible to control this object remotely

HANDS-ON EXERCISES

OBJECTIVE

- To learn how to test some settings of the CCa client, the features of the tool bars, to add the photos of the users in the CCa server and to test the groupware possibilities

MANAGEMENT

1. Configure the CCd agent in order to get a preferred processing group (the password will be disable too); log on the CCa agent
2. Test some CCa client settings parameters
 - 2.1. Lock and unlock the “system configuration” tabs by using a password
 - 2.2. Launch the CCs on CCa Logon
 - 2.3. Activate the “auto answer on making call” feature
 - 2.4. Validate the forward on busy set of the CCa agent, on logon, to the analog set (3X010)
 - Notice that the direct ACD call and private calls are forwarded whereas the CCd calls are still routed to the forwarded agent
 - Test the status of the agent’s phone from the OTS administration (6 + Agent Dir. N°)
 - 2.5. Create a shortcut : “F4” key will display the Dial Pad
3. Hide or display the toolbars that you want
What is the meaning of “Docking”

4. Test the CCa **telephone bar** in different situations
 - Withdrawal (different causes are to be set up)
 - Pause
 - Make call and associate a note to it
 - Wrap up
 - Redial
 - Enquiry call
 - Call parking (hold on)
 - Supervisor features (help, silent monitoring, intrusion, conference, transfer)
 - Supervised transfer
 - Open / close a processing group
 - Put in or remove from the general forwarding status a pilot
 - Manage some predefined programmable keys from the Dial Pad
5. Display the Statistic tool bar for the agent/supervisor and for the Processing group
 - 5.1. In the “agent status” bar, we would like to display the name of the agent (instead of his directory number)
 - 5.2. Analyze the main statistics parameters of these windows
6. Caller picture
 - 6.1. Create a bmp file for the agents 3X500 3X501, 3X502 or for some others correspondents that you want (internal or external correspondents), that will be used as photos by the CCa
 - 6.2. Create a mapping file (text file) to associate your BMP files and the correspondents
Example given:

F001.bmp	34500
F002.bmp	34501
H001.bmp	34502
H002.bmp	34010
H003.bmp	218034011
 - 6.3. Use the photo converter tool to resize and to load these pictures
 - 6.4. Validate “the caller picture” parameter in the CCa client
Log the agents and check that the photos appear in the phone bar during conversations

7. Test the service toolbar
 - 7.1. Create some entries in the agent personal phone book
 - 7.2. Check the call log
 - Display additional information
 - Display or create a note for the selected call
8. Test the groupware facility
 - 8.1. By using the OTS Manager tool, create a group with the agent sets 3X500, 3X501 and the supervisor 3X502
 - 8.2. Enable the “display of partner frame” in the CCa client
 - 8.3. Manage the Partner bar in order to display the PG 3X800 and the group created previously in the OTS Manager tool (display with photos) at the same time
 - 8.4. Use the phone facilities of the Partner bar
 - Call
 - Transfer (make call with the partner bar, and transfer with the CSTA bar)
 - Supervision of the agents of the team
 - Send a note to one agent or to all agents of the group
9. Use the OTS maintenance tool, options 21 and 22 to observe the status of the Teams
10. Use the right maintenance command to display the software licenses

HANDS-ON EXERCISES SOLUTIONS

OBJECTIVE

- To learn how to test some settings of the CCa client, the features of the tool bars, to add the photos of the users in the CCa server and to test the groupware possibilities

MANAGEMENT

1. Configure the CCd agent in order to get a preferred processing group (the password will be disable too); log on the CCa agent

From the CCs, go to: "Configurations / Agent"

The screenshot shows the 'Agents Configuration' window with the title bar 'Agents Configuration All agents on all sites / 1_agent one'. The window is divided into several sections:

- Select the agent:** A tree view on the left shows 'All agents on all sites' expanded, with '10.10.4.3' selected. Below it, a table lists agents:

Number	Name
1_34500	1_agent one
1_34501	1_agent two
1_34502	1_supervisor one
- Attachment PG Agents:** A list box containing '1_34800'.
- Skills:** A table with columns 'N', 'Abb...', 'Domain', 'Skill', 'L...', and 'A'. It contains two rows:

N	Abb...	Domain	Skill	L...	A
1	FRA	0	1	9	x
87	DICA	1	87	1	x
- Agent's name:** 'agent'.
- Agent's first name:** 'one'.
- Category:** 'Agent'.
- Assigned to PG Agents:** '1_agent_PG'.
- Agent status:** 'Assigned current PG'.
- Communication status:** 'Idle'.
- Secret Code:** A text box with 'SECRET'.
- Password at log-on:** A checkbox that is checked.
- Self-Assigning Agent:** A checkbox that is checked.
- Can set his skills:** A checkbox that is checked.
- Associated set no.:** A text box with 'Set ...'.
- Preferred GT Agents:** A dropdown menu showing '1_34800'.

At the bottom, there are buttons for 'Skills Matrix', 'Cancel withdraw', 'Other Actions...', 'Cancel', 'OK', and 'Exit'.

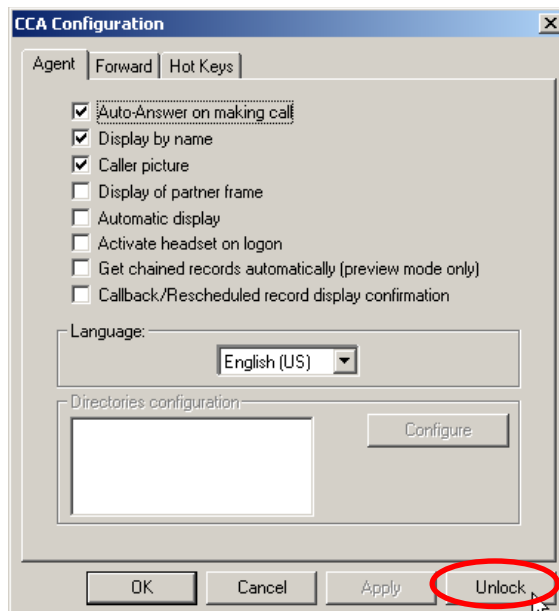
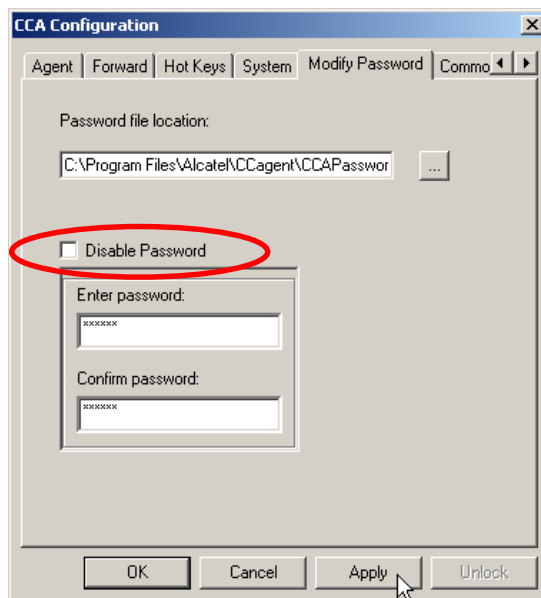
2. Test some CCa client settings parameters

2.1. Lock and unlock the “system configuration” tabs by using a password

From the CCa, configure the CCa parameters

Go to: Configuration / parameters / “modify password tab”

Enable the password and create the password

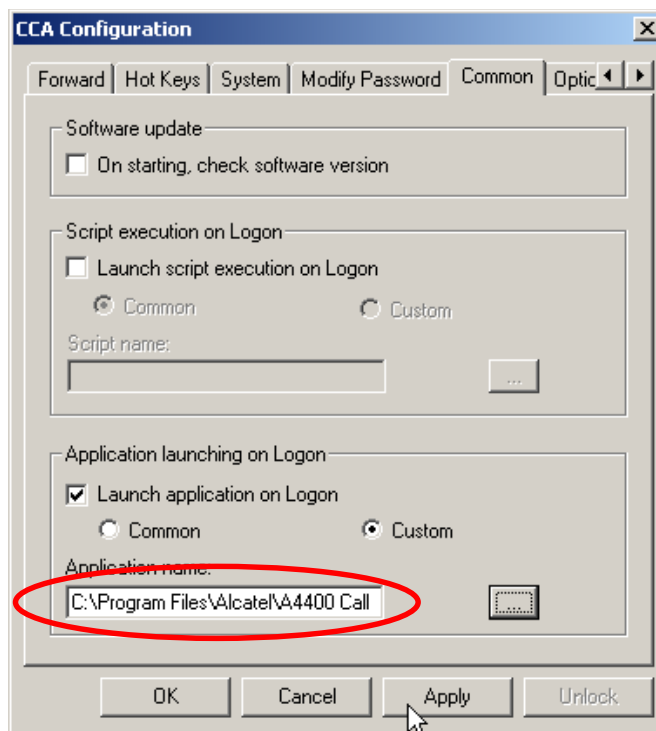


2.2. Launch the CCs on CCa Logon

From the CCa, configure the CCa parameters

Go to: Configuration / parameters / “common” tab

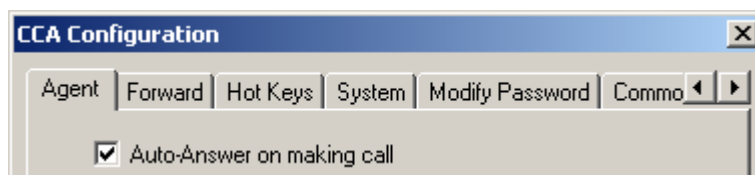
Manage the right path in the parameter menu of CCa Application



2.3. Activate the “auto answer on making call” feature

From the CCa, configure the CCa parameters

Go to: Configuration / parameters / “agent” tab



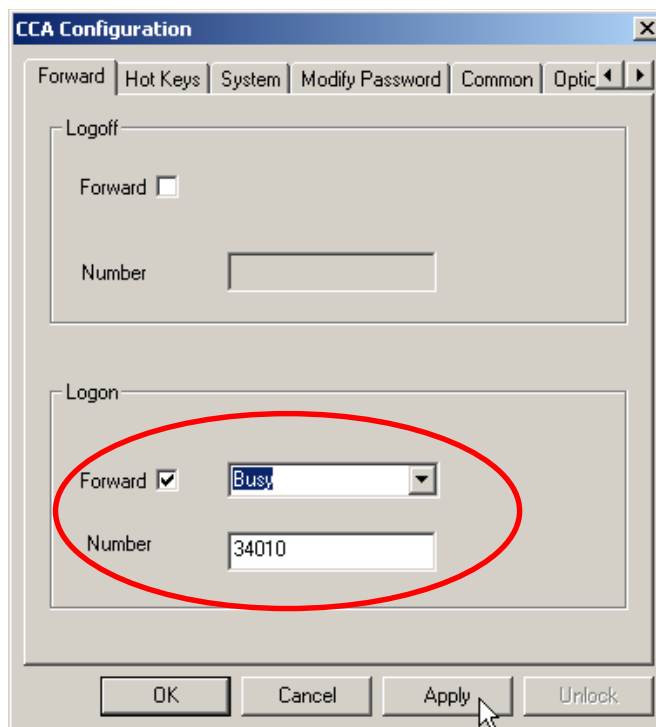
This parameter avoids off hooking before an agent makes a call

2.4. Validate the forward on busy set of the CCa agent, on logon, to the analog set (3X010)

- Notice that the direct ACD call and private calls are forwarded whereas the CCd calls are still routed to the forwarded agent

From the CCa, configure the CCa parameters

Go to: Configuration / parameters / "Forward" tab



The image shows the 'CCA Configuration' dialog box with the 'Forward' tab selected. The 'Logoff' section has a 'Forward' checkbox (unchecked) and a 'Number' text box. The 'Logon' section has a 'Forward' checkbox (checked), a dropdown menu showing 'Busy', and a 'Number' text box containing '34010'. A red oval highlights the 'Logon' section. At the bottom are buttons for 'OK', 'Cancel', 'Apply', and 'Unlock'.

- Test the status of the agent's phone from the OTS administration (6 + Agent Dir. N°)

Run the OTS maintenance tool:

- Start / Programs / Alcatel OmniPCX OTS / Maintenance / OTS Maintenance
- Enter option 6 + agent directory number (6 34500)



The image shows a terminal window for the OTS Maintenance tool. It displays a menu with options 100 through 600. At the bottom, it shows 'Version: 3.251.25' and 'args: 3595 / e'. The input '6 34500' is entered and highlighted with a red oval. A mouse cursor is visible over the input.

Some information are available

```
34500: PersonalIdNb , WithSecrCode 1, type ua_mr2_3g, nb_ref 2, ots 0
user 34500, mevo 34999, Category 0, cfg_state 1, licence Not_A4980, noma
dic 0, dec_auto 0, nomadic_rights 0, Z nomadic 0
Crid= 69990656, MonitorState: 1, State: Free (1)
since: 3269 last snapshot: 3298(s) ago

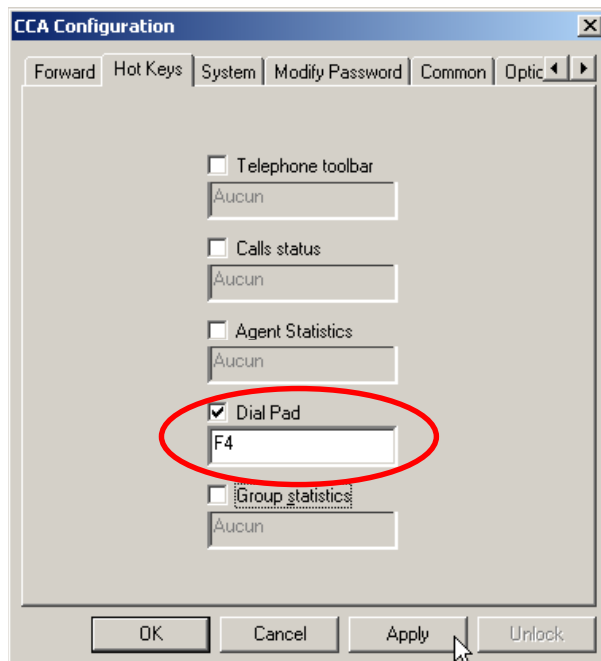
state_info: -1
Auto_Originate_mode : 1
PctActiv: 825784fb : PROGLINE MAKECALL PICKUPCALL

UNPARKCALL EXTERN_FORWARD IMMEDIAT_FWD
FWD_ON_BUSY FWD_CANCEL MODIF_ASSOCIATE
DO_NOT_DISTURB_R LOCK_R MODIF_CODESEC
GROUP_CALL_PO SECRET_IDENT MK_CALLBACK_IDLE
CATEG_READY
StateFlags: CAMPON
PwdState RU0CC PwdNumber 34010
last snapshot: 3298(s) ago
menu_idx: 0, nb_sofkeys: 0
last_held_call: 143
function 1 multiline0
nb callback notif : 0
user: AGENT one 34500
nb_clients: 1
adr_cli: 1/-1:-1/25
list of clients:
group id : group_one Logged : 1
group id : group_two Logged : 1
group id : group_three Logged : 1
group id : 34800 Logged : 1
agentServState: Affected (3) ProACD: 34002
CCAFetActiv: 0000e216 : LOGOFF WITHDRAW WRAPUP
SUPERVISORCALL
RUGPILOT ENTRYGROUP
RegisteredAddress: 0
User login-name: 34500
```

2.5. Create a shortcut : “F4” key will display the Dial Pad

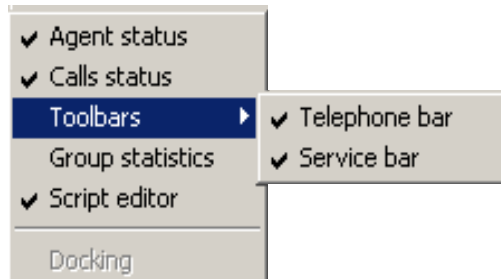
From the CCa, configure the CCa parameters

Go to: Configuration / parameters / “Hot key” tab



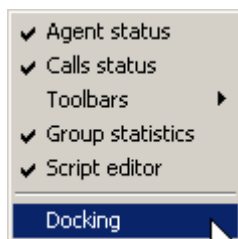
3. Hide or display the toolbars that you want

Do a right click on the CCa client interface and choose the visible / hidden toolbars



What is the meaning of “Docking”?

When a toolbar is separated from the CCa client interface, if you choose “Docking”, this bar will be linked back to automatically to the CCa client interface



4. Test the CCa **telephone bar** in different situations

- Withdrawal (different causes are to be set up)
- Pause
- Make call and associate a note to it
- Wrap up
- Redial
- Enquiry call
- Call parking (hold on)
- Supervisor features (help, silent monitoring, intrusion, conference, transfer)
- Supervised transfer
- Open / close a processing group
- Put in or remove from the general forwarding status a pilot
- Manage some predefined programmable keys from the Dial Pad
- **Withdrawal:** From “mgr”, edit an agent processing group and manage several types of Withdrawal name (9 max)

Mgr / Application/CCd/Processing group/ <Agent Pg nb>

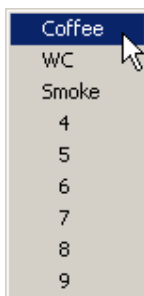
Review/Modify: Processing Group

Node Number (reserved) : 4
Instance (reserved) : 1
Instance (reserved) : 1
Directory Number : 34800

Unavailable type parameters

Unavailable type : 9
Display Unavailable type 1 : Coffee
Display Unavailable type 2 : WC
Display Unavailable type 3 : Smoke
Display Unavailable type 4 : 4
Display Unavailable type 5 : 5
Display Unavailable type 6 : 6
Display Unavailable type 7 : 7
Display Unavailable type 8 : 8
Display Unavailable type 9 : 9

From the CCa:



- To get the pause icon in the agent phone bar define a timer and make an ACD call.

Mgr / Application/CCd/Pilot/ <pilot nb>

Review/Modify: Pilot

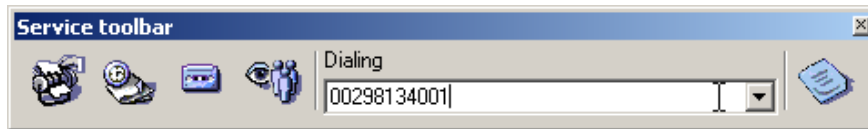
Node Number (reserved) : 4
Instance (reserved) : 1
Instance (reserved) : 1
Pilot Directory Number : 34600
Time Between Two Calls : 100

From the CCa:

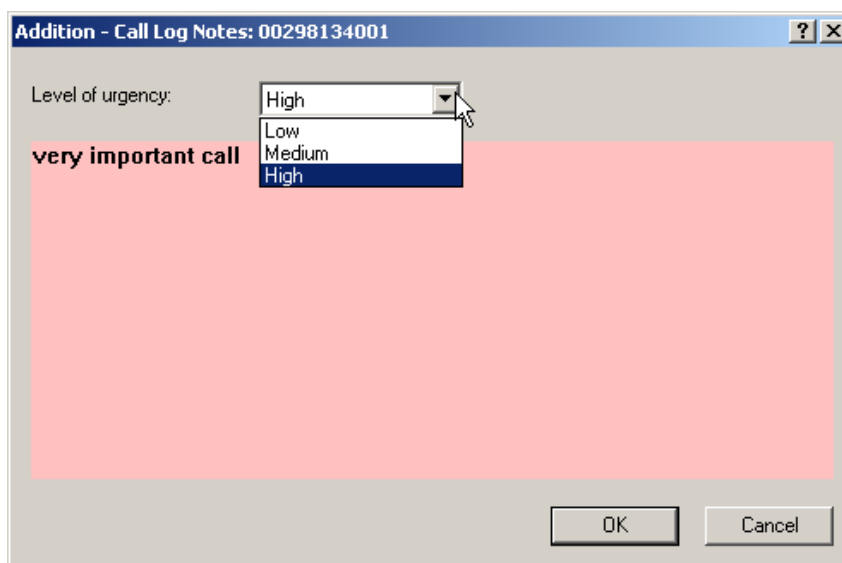


Make a call and associate a notes to it

Enter a phone number, press “return”



Associate a note to this call

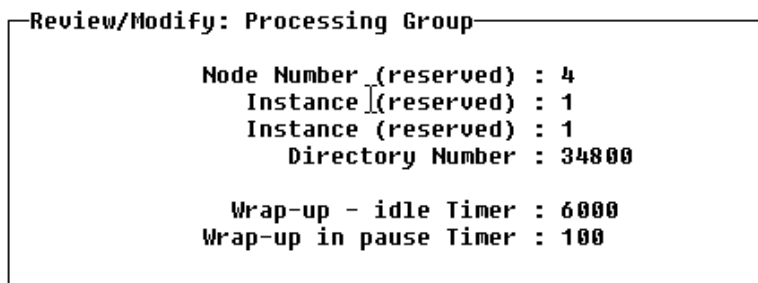


- Manage the wrap -up

Manual Wrap up is managed in the PG

2 types of manual wrap up: wrap up in idle state and in pause state

Mgr/application/ccd/processing group/ <Pg Nb>



Automatic Wrap up is managed in the pilot

Mgr/application/ccd/pilot/ <Pilot Nb>

Review/Modify: Pilot

```

Node Number (reserved) : 4
Instance (reserved) : 1
Instance (reserved) : 1
Pilot Directory Number : 34600
Auto.WrapUp Timer : 200
    
```

From the CCa:



Redial

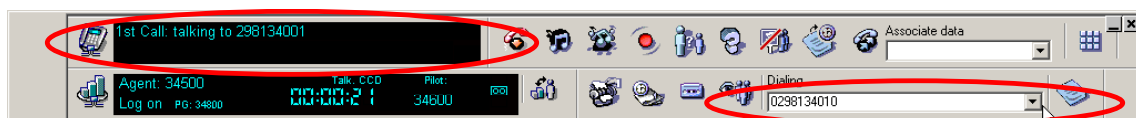
Nothing to do, this icon is automatically displayed in the Phone bar



Enquiry call

Nothing to do, this icon is automatically display in the Phone bar

Your CCa agent is already in call (1st call)



Then enter a phone number in the “dialing” box and press “return”

The enquiry call is done



Call parking

When you make an enquiry call the first call is automatically put on hold


When only one call is established, press the following key to put it on hold



Supervisor features (help, silent monitoring, intrusion, conference, transfer..)

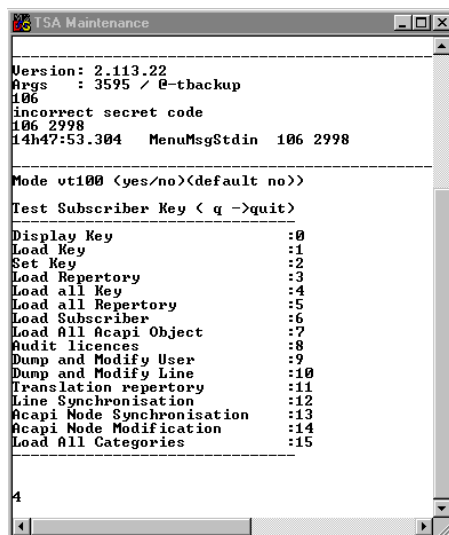
You have to create the “ACD listening” programmable key with mgr

Mgr/users/<supervisor nb>/programmable keys/

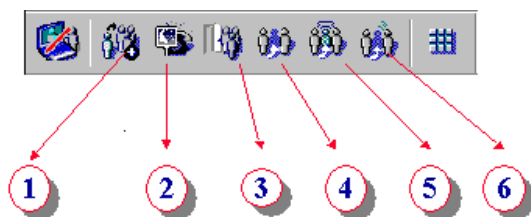
```
Review/Modify: Progr.Keys
Node Number (reserved) : 4
Directory Number : 34502
Key No. : 1
Function +  CD Listening
Mnemo(Pocket,Mobile,4040,IPTouch) : -----
```

Force to download the PBX management to OTS with OTS maintenance tool

- Run the OTS maintenance tool:
- Start / Programs / Alcatel OmniPCX OTS / Maintenance / OTS Maintenance
- Choose menu 100, then Menu 106 2998



The Supervisor bar display these Icons according to the extension management



- 1 Enter / exit from Processing Group
- 2 Forward the pilot (Close)
- 3 Close Processing Group
- 4 Discrete monitoring (Listening)
- 5 Intrusion
- 6 Restrictive Intrusion

As soon as the “ACD listening” key is managed on the supervisor set, the “help” key will work on the agent set by using the following key



Supervised transfer

Make an enquiry call and press the right icon



Transfert

PG open / close and pilot general forwarding

You have to create the programmable key with mgr

Mgr/users/<agent or supervisor nb>/programmable keys/

```
Review/Modify: Progr.Keys
Node Number (reserved) : 4
Directory Number : 34500
Key No. : 1
Function + General Forwarding of Pilot
Mnemo(Pocket,Mobile,4040,IPTouch) : -----
Directory Number : -----
```

```
Review/Modify: Progr.Keys
Node Number (reserved) : 4
Directory Number : 34500
Key No. : 2
Function + Closing PG
Mnemo(Pocket,Mobile,4040,IPTouch) : -----
Directory Number : -----
```

From CCa

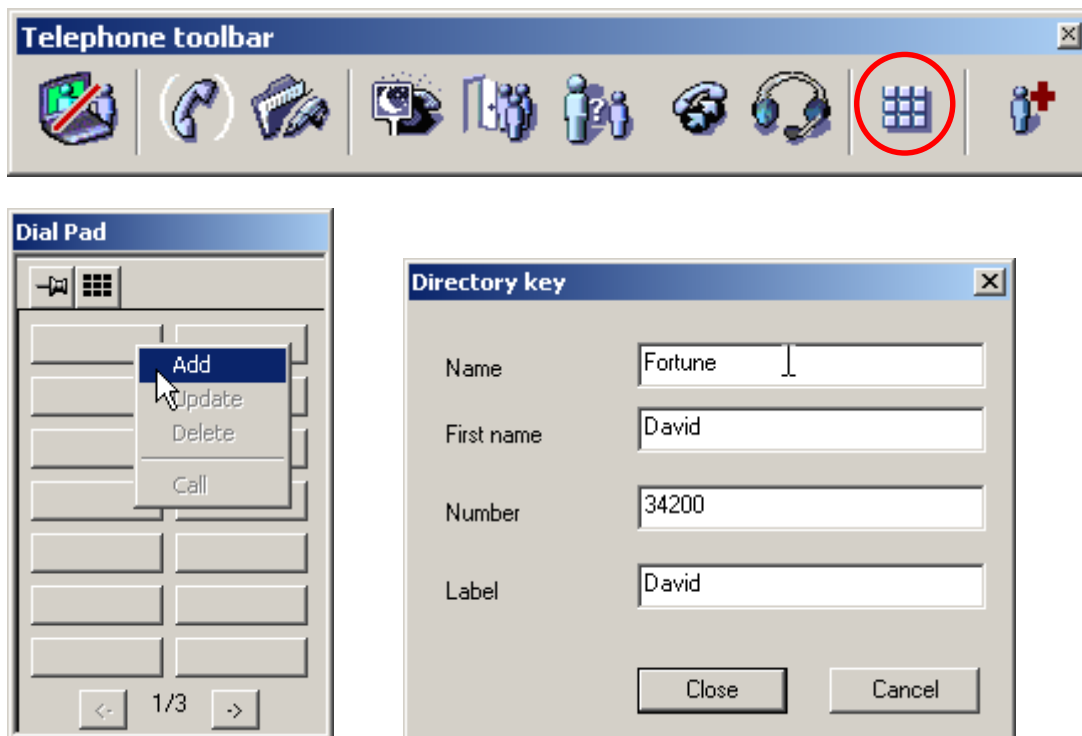


Force to download the PBX management to OTS with OTS maintenance tool

Menu 106 2998

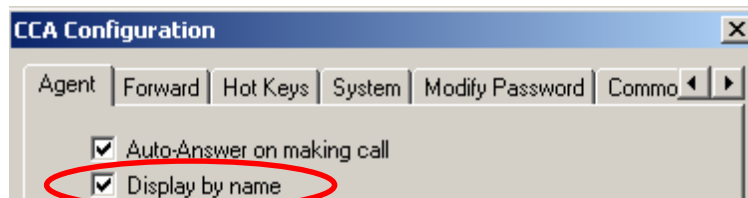
- Programmable keys management

Open the “Dial Pad”

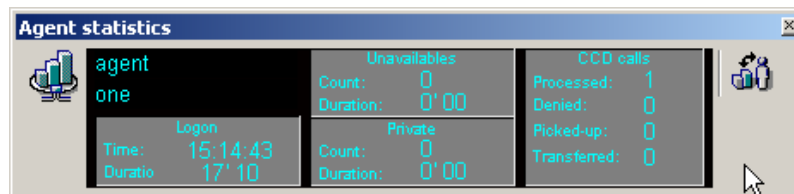


5. Display the Statistic tool bar for the agent/supervisor and for the Processing group
 - 5.1. In the “agent status” bar, we would like to display the name of the agent (instead of his directory number)

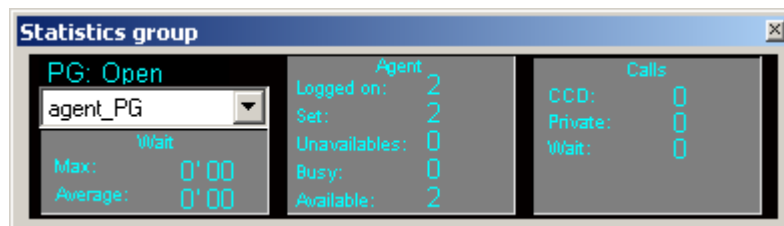
In the CCa settings parameter, go to the “agent” tab



Agent statistics window



Statistics group window



- 5.2. Analyze the main statistics parameters of these windows

6. Caller picture

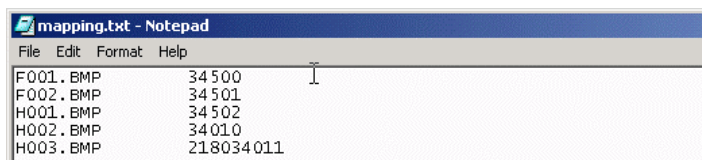
- 6.1. Create a bmp file for the agents 3X500 3X501, 3X502 or for some others correspondents that you want (internal or external correspondents), that will be used as photos by the CCa

The trainer will give you some BMP files

- 6.2. Create a mapping file (text file) to associate your BMP files and the correspondents

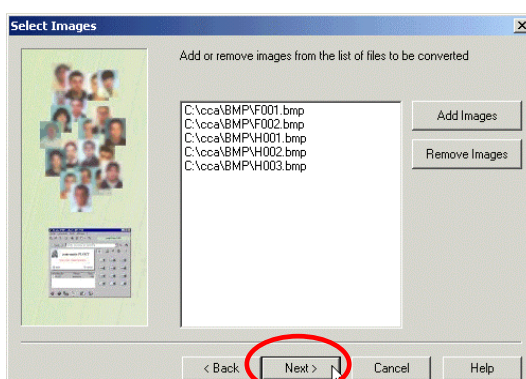
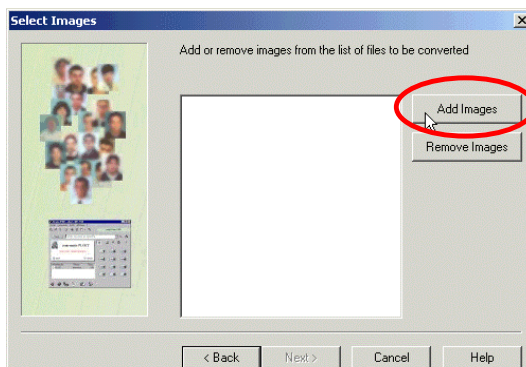
Example given:

F001.bmp	34500
F002.bmp	34501
H001.bmp	34502
H002.bmp	34010
H003.bmp	218034011

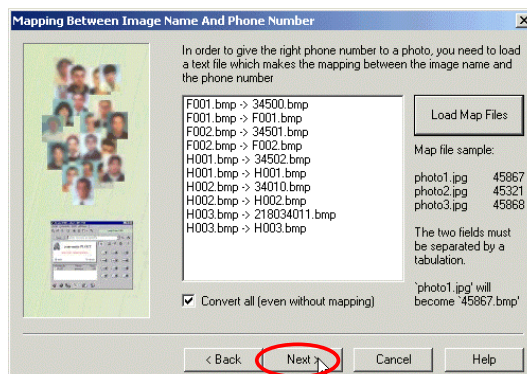
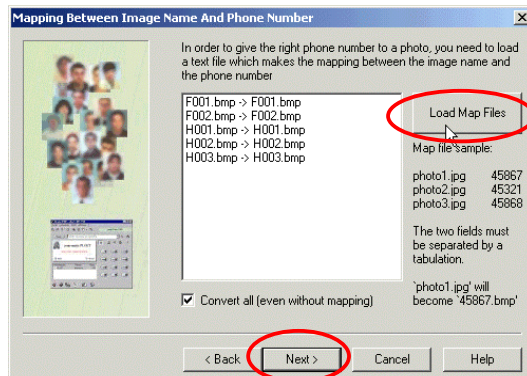


- 6.3. Use the photo converter tool to resize and to load these pictures

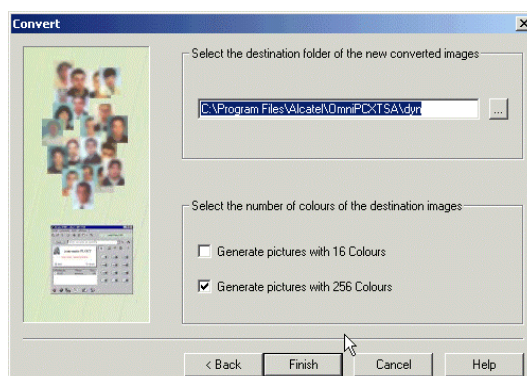
Run the “photo converter” tool: **Start / Programs / Alcatel Omni PCX OTS /Photo Converter**: Select the pictures (BMP or jpeg files) given by the trainer

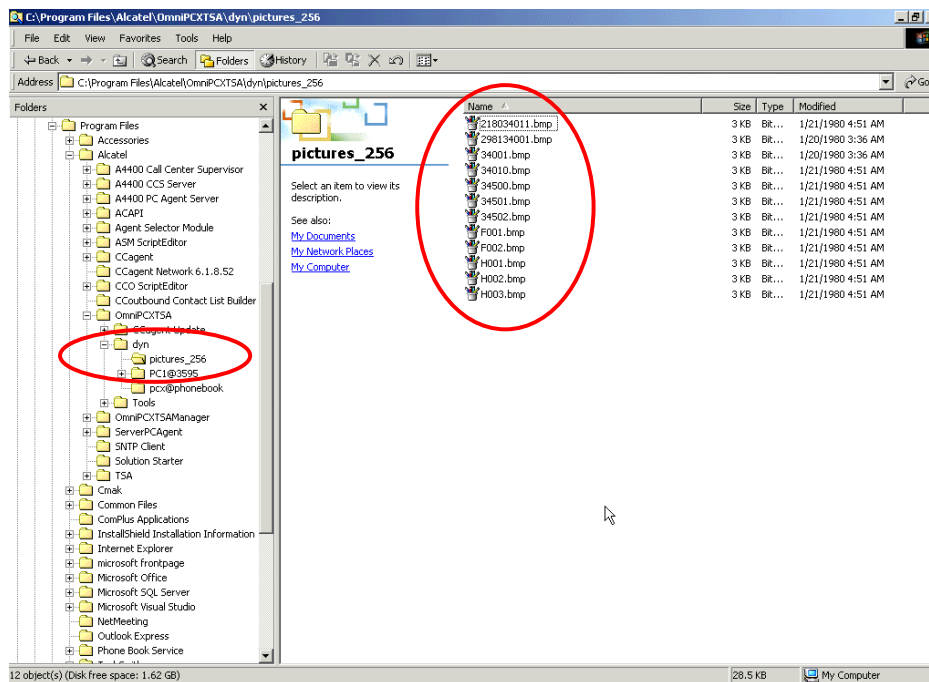


Then, in the next step, you have to specify the mapping file that you want to use. Remind that this mapping file is necessary to associate the pictures with the correspondents (internal or external) phone numbers.



If everything is well managed, you can check the directory: "Programs files/alcatel/OmniPCXTSA/dyn/Pictures_256". All the pictures will be available in this directory.

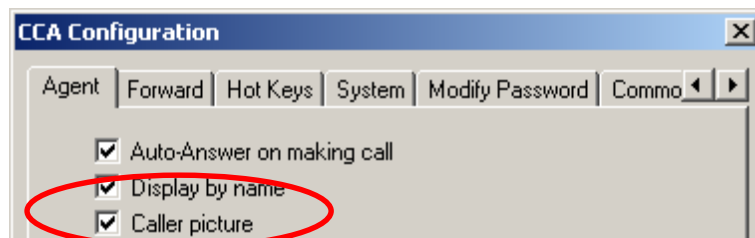




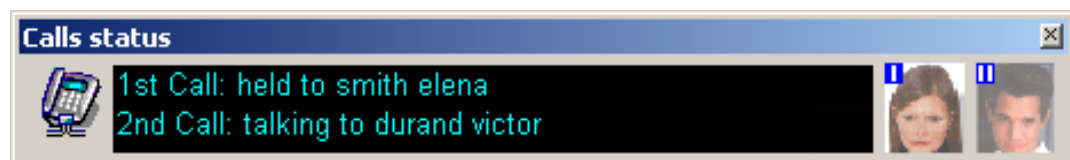
6.4. Validate “the caller picture” parameter in the CCa client

DON'T FORGET TO VALIDATE THE RIGHT PARAMETER IN THE CCA SETTINGS MANAGEMENT

Configuration / parameters / « Agent » tab



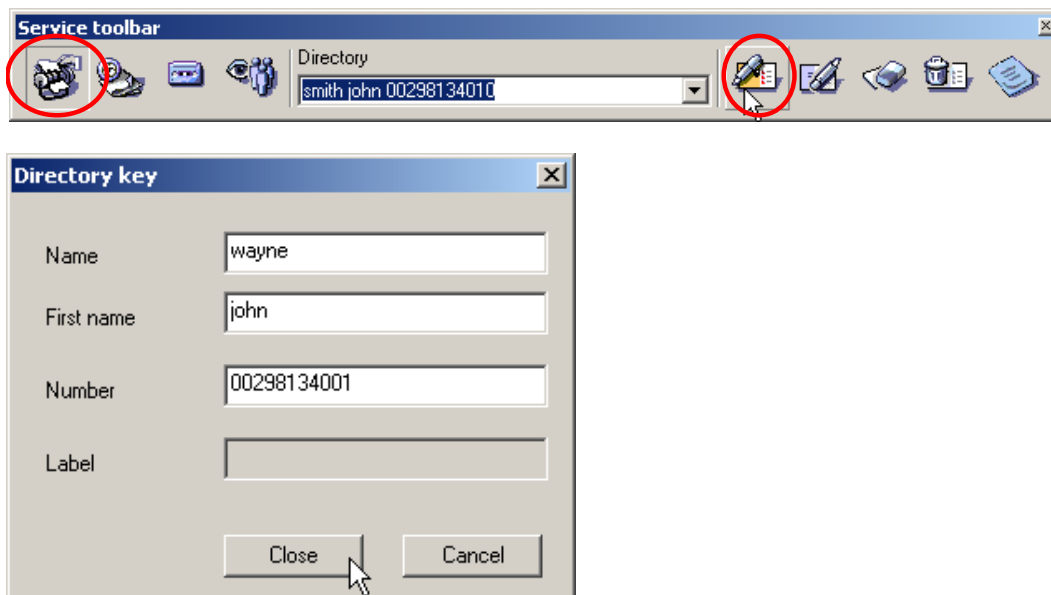
Log the agents and check that the photos appear in the phone bar during conversations



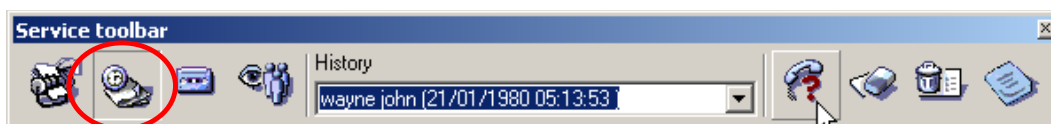
7. Test the service toolbar

7.1. Create some entries in the agent personal phone book

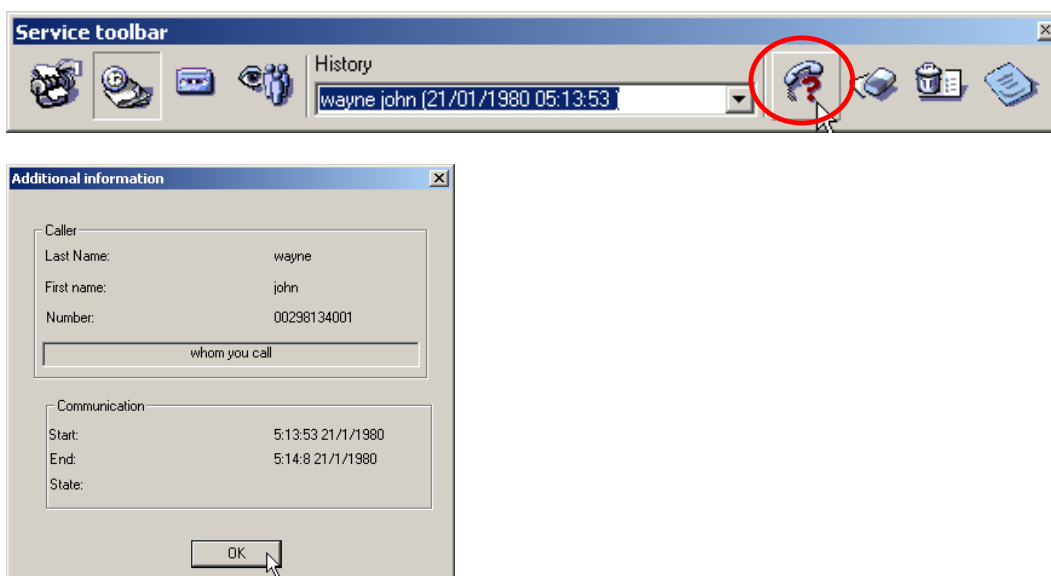
Create some entries in the agent personal phone book



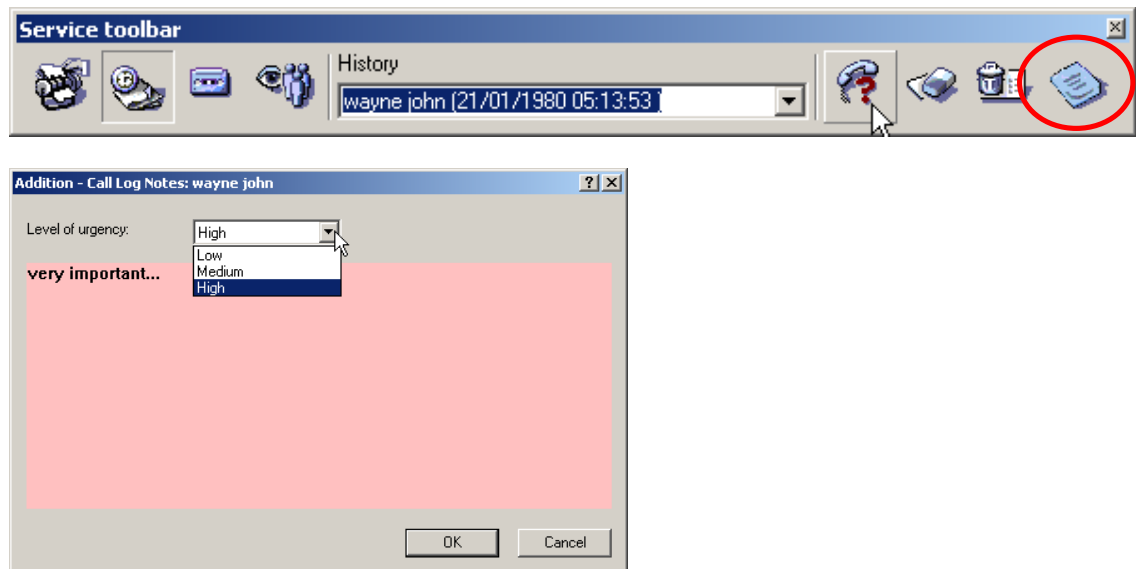
7.2. Check the call log



Display additional information



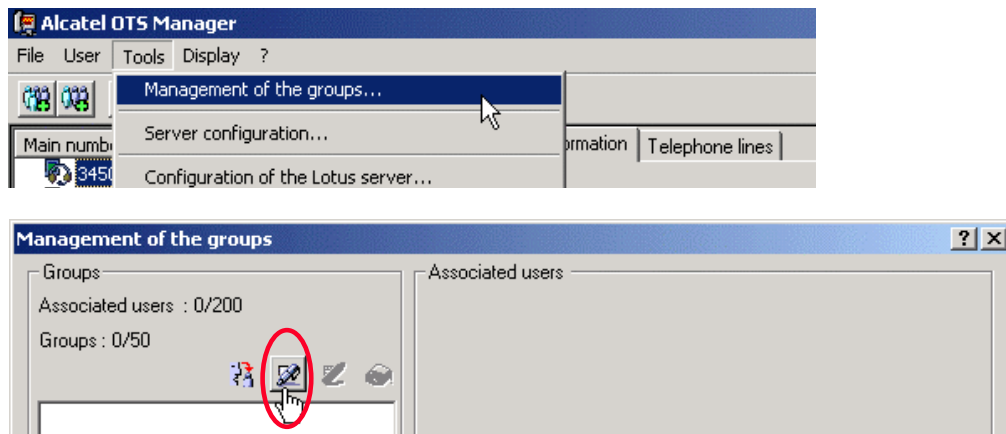
Display or create a note for the selected call



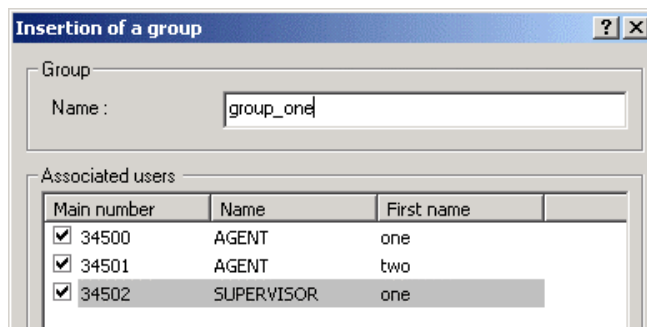
8. Test the groupware facility

- 8.1. By using the OTS Manager tool, create a group with the agent sets 3X500, 3X501 and the supervisor 3X502

Run OTS Manager tool and manage a group



Add the 3 sets in the group

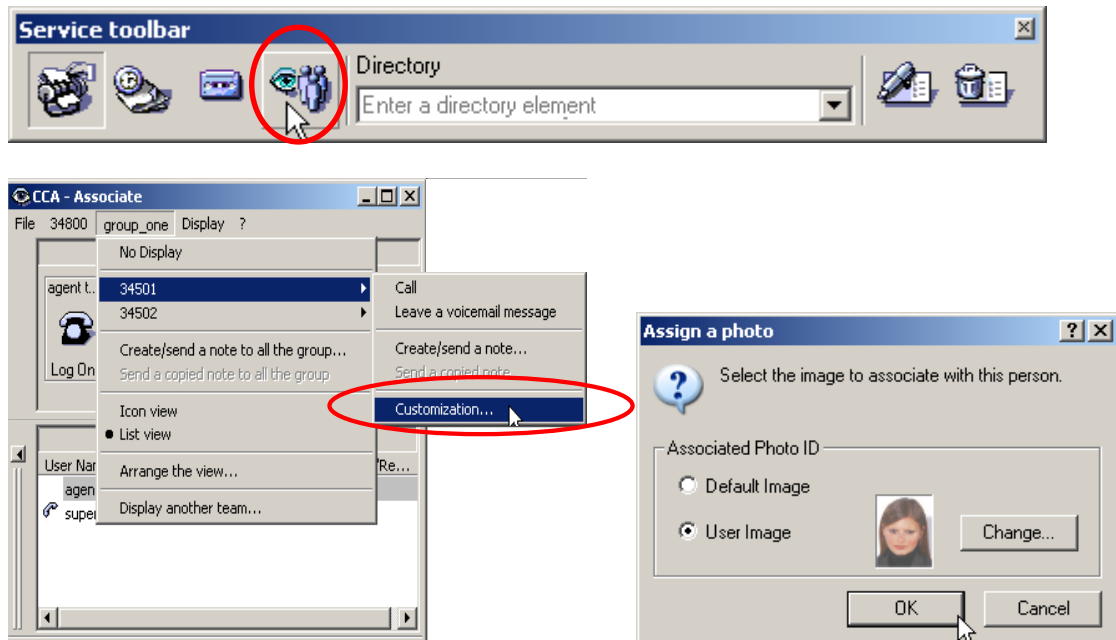


- 8.2. Enable the “display of partner frame” in the CCa client

- Configuration / parameters / « Agent » tab

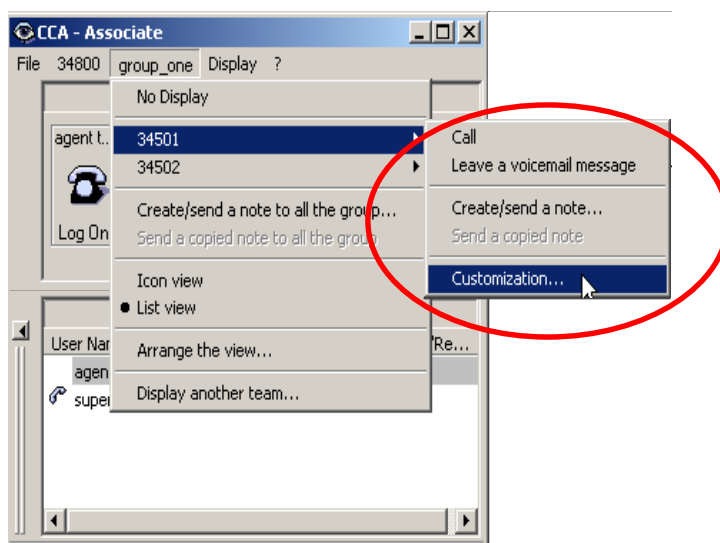


- 8.3. Manage the Partner bar in order to display the PG 3X800 and the group created previously in the OTS Manager tool (display with photos) at the same time



- 8.4. Use the phone facilities of the Partner bar

- Call
- Transfer (make call with the partner bar, and transfer with the CSTA bar)
- Supervision of the agents of the team
- Send a note to one agent or to all agents of the group



9. Use the OTS maintenance tool, options 21 and 22 to observe the status of the Teams
 - Start / Programs / Alcatel OmniPCX OTS / Maintenance / OTS Maintenance
 - Choose menu 21 or 22 + Processing group QMCDU

TelStat = 0 agent is logged into the group

```
Version: 3.251.25
Args : 3595 / 0
21
05h30:52.436 MenuMsgStdin 21

-----
Groupe : group_one
34500 34500 telState : 0 logged : 1 priv : 1
34501 34501 telState : 1 logged : 1 priv : 1
34502 34502 telState : 0 logged : 1 priv : 1
clients: nb= 1 :
adr_cli: 1/-1:-1/25

-----
GroupeACD: 34800 pg 1
34500 34500 telState : 0 logged : 1 priv : 1
34502 34502 telState : 0 logged : 1 priv : 1
clients: nb= 1 :
adr_cli: 1/-1:-1/25
```

10. Use the right maintenance command to display the software licenses
Use the “spadmin” command (option 2) and check the software licenses:
 - 115 (CCa)
 - 189 (CCTI)
 - 158 (CSTA by pass)

Alcatel-Lucent OmniTouch Contact Center Standard Edition



CCa Nomadic



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1

OBJECTIVE

- ◆ To describe and manage the CCa NOMADIC
 - Nomadic GSM
 - Nomadic VOIP

■ NOMADIC service overview

- The purpose of the Nomadic service is to bring to tele-Workers, all office and enterprise applications and facilities (Telephone, Email, Directory, Calls Historic, ...).
- The Nomadic service can be used for agents working in remote on mobile GSM, at home on physical set or PC Multimedia, if business user on another PBX,...
- A Remote Access Server (RAS) to the LAN of the enterprise already offers the remote user access to his office data (Company's information base). The Nomadic service adds a transparent use of voice communication, and brings to the Nomadic worker complete access to the services offered by the CCAgent application (GroupWare, Call by Name, Voice Mail, ...)

- CCa Nomadic offers a transparent access to CCa services for CCa Home workers

- Two types of Nomadic Agents

- GSM or second Line

- The CCa agent uses a Mobile phone or Second line to establish a call



- Multimedia

- The CCa agent uses an IP stack compliant to H323 for CCd calls
 - A VOIP gateway is implemented in the Alcatel-Lucent OmniPCX Enterprise
 - G711 & G723 algorithms supported
 - ♦ G729 algorithm not supported !!

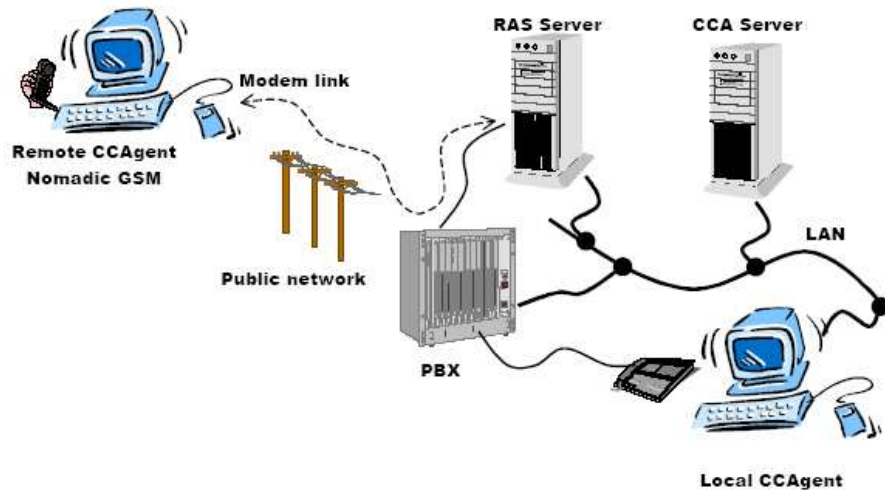


■ Static and Dynamic Modes

- Since the Nomadic process and the exchange of data between PCX, OTS (Open Telephony Server) and CCa will add delay to communication establishment when the user is a Nomadic, two modes will be available:
 - Static: When using this mode, the audio channel (IP or traditional) is reserved all along the Nomadic session (between the login and the logout of the user). This means that this mode is more expensive in terms of call charging, because we have a call established during the entire session between the phone set and the PC of the user. In return, the audio channel being established, no delay will be added to process calls for the Nomadic user
 - Dynamic: When using this mode, an audio channel (IP or traditional) is established each time an outgoing call or an incoming call has to be processed for the Nomadic user, adding delay to process this call. In return, this solution is less expensive considering call charging
- The user will be able to choose either mode (if he has the rights to), but his choice won't be taken into account dynamically. He will have to stop and start again the CCa application

■ Home worker with GSM or 2nd phone line

● Topology



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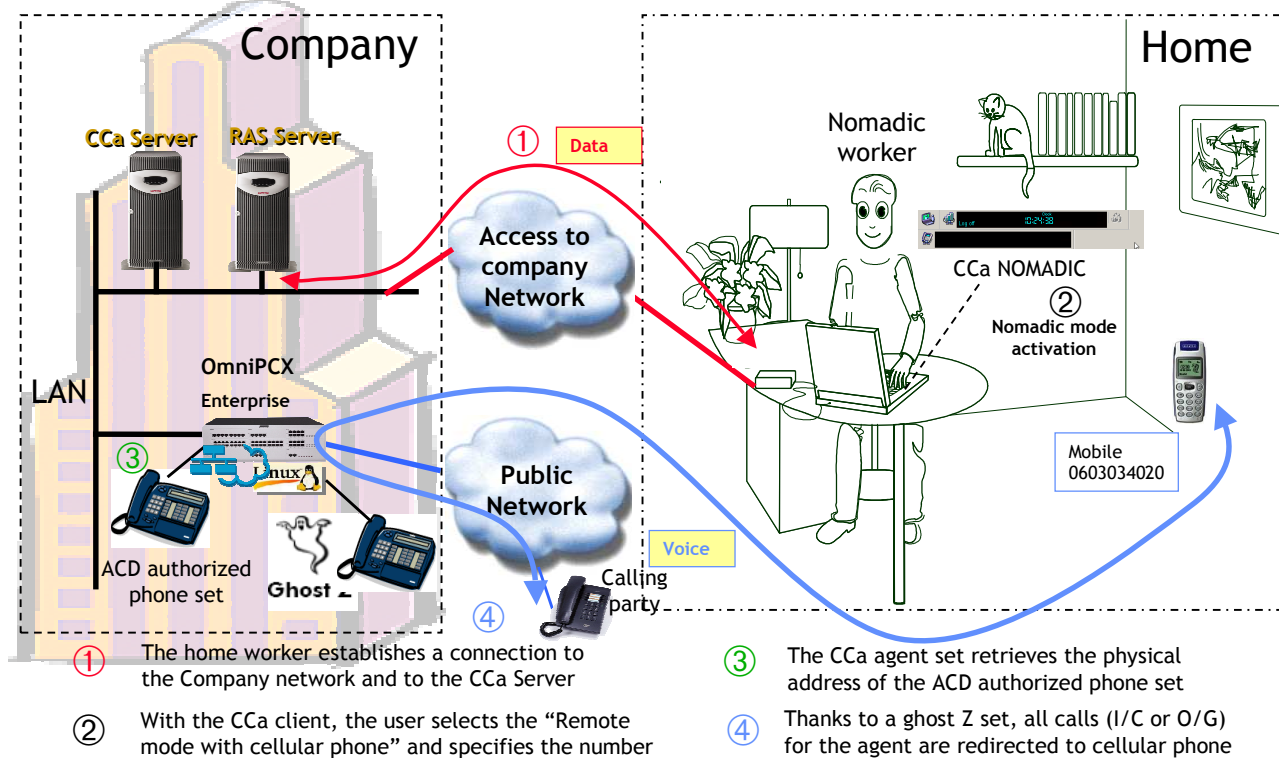
5

Nomadic services Access

The home worker will first connect to the LAN (in direct by LAN/WAN or by modem on RAS server) to start CCagent application. Considering voice, two kinds of Nomadic services will be available:

- **GSM mode:** bringing voice on traditional switched network (public or private network) it needs one line for the voice channel and one line for RAS access (physical or mobile line).
- **Multimedia mode:** bringing voice over internet frames (with INTIP,... board): only LAN access is needed (through local LAN or RAS access).

■ Nomadic mode with GSM or 2nd phone line principle



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■ Creation of ACD authorized phone set

- Go to: « Users »

Review/Modify: Users

Node Number (reserved) :	4
Directory Number :	34016
Directory name :	Z1 Pro ACD
Directory First Name :	Nomadic
Location Node :	4
Shelf Address :	0
Board Address :	1
Equipment Address :	5
Set Type :	ANALOG with 4980
ACD station :	ACD authorized phone set
CCA Operations :	False
A4980 :	No 4980
NOMADIC :	False

- It is needed to create as much ACD authorized phone set (with a physical address) as of nomadic agents
- One must not attach an agent to a ACD authorized phone set used for the nomadic

The ACD authorized phone sets need a physical address. It is thus advised to use Z equipment, because it is not needed to connect a set on this equipment. If an UA equipment is used, it is needed to connect a UA set, if not the equipment is out of service.

■ Creation of Ghost Z

- It is needed to create as much Ghost Z set (without physical address) as of nomadic CCa agents
- Go to: « Users »

Review/Modify: Users

Node Number (reserved) :	4
Directory Number :	34026
Directory name :	Ghost1
Directory First Name :	Nomadic
Location Node :	4
Shelf Address :	255
Board Address :	255
Equipment Address :	255
Set Type +	ANALOG
ACD station +	NO
CCA Operations +	False
A4980 +	No 4980
NOMADIC +	False
Ghost Z +	True
Ghost Z Feature +	Nomadic

■ Creation of agents

- There is no particular management for the Nomadic GSM agents (identical to a traditional CCa agent)
- Go to: « Users »

Review/Modify: Users

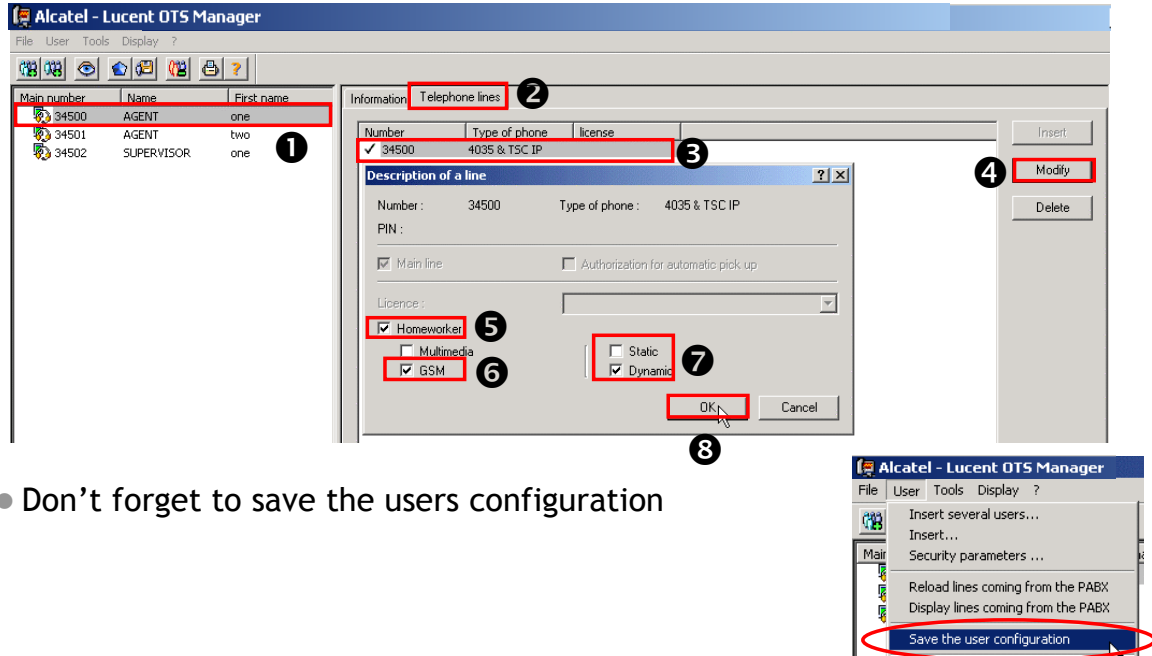
Node Number (reserved)	: 4
Directory Number	: 34500
Directory name	: agent
Directory First Name	: one
Location Node	: 4
Shelf Address	: 255
Board Address	: 255
Equipment Address	: 255
Set Type	+ 4037 (4035 & TSC IP)
ACD station	+ Agent
CCA Operations	+ True
04000	+ No 4980
NOMADIC	+ False

- Do not attach an agent used for the nomadic to an user ACD authorized phone set

NOMADIC: False (it will be turn to True with the OTS server)

■ Declaration of Agents as GSM Nomadic agents

- The declaration is done via the OTS Manager

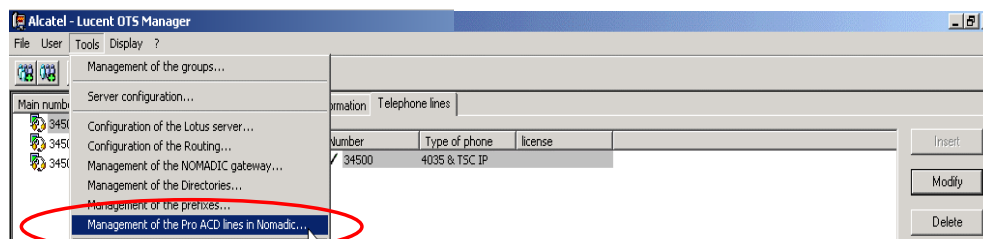


- Don't forget to save the users configuration

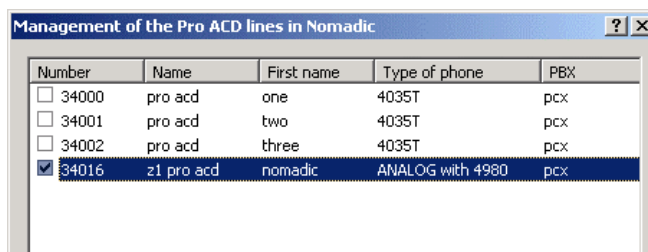
If one validates the Static box, the local station or the GSM is permanently connected to the Ghost Z (V) as soon as the agent activate the log-on. In this case, it is not possible to use the internal set or the GSM between two CCa calls

■ Declaration of ACD authorized phone set in Nomadic in the OTS server

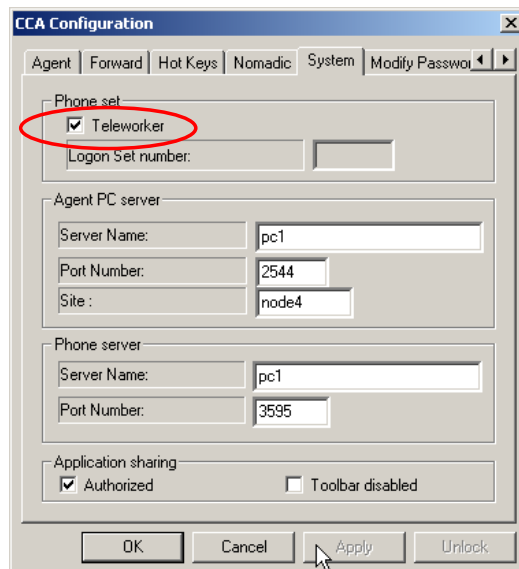
- The declaration is done via the OTS Manager



- Select the sets declared in the PCX database which will be used for NOMADIC



- Declaration of the CCa agent client as Nomadic agent
 - From the CCa client software, select the « system » tab

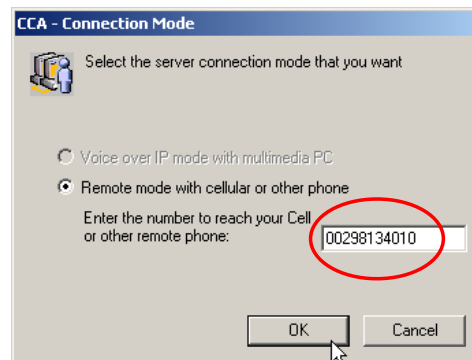


■ Connection of the CCa agent client

● Log on procedure



- Enter the remote GSM directory number; don't forget to specify the trunk group seizure prefix



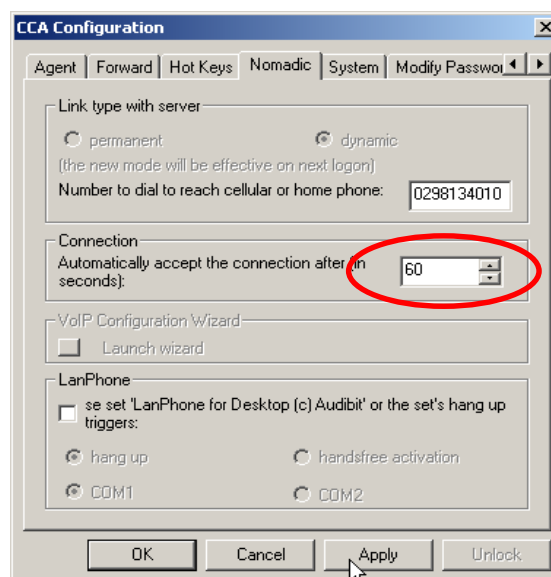
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After the log on, cancel the withdrawal

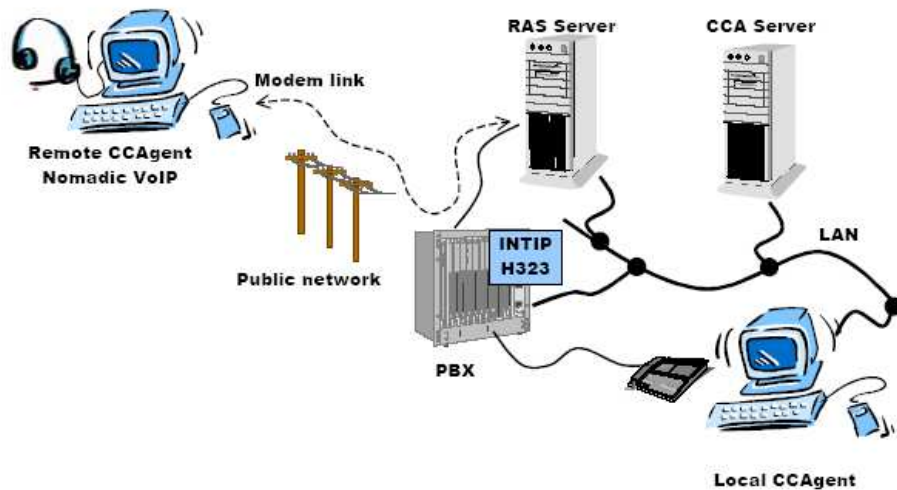


By default, after 60 seconds, the connection will be automatically accepted



■ Home worker with PC Multimedia in VoIP terminal mode (voice and data over the LAN/WAN)

● Topology



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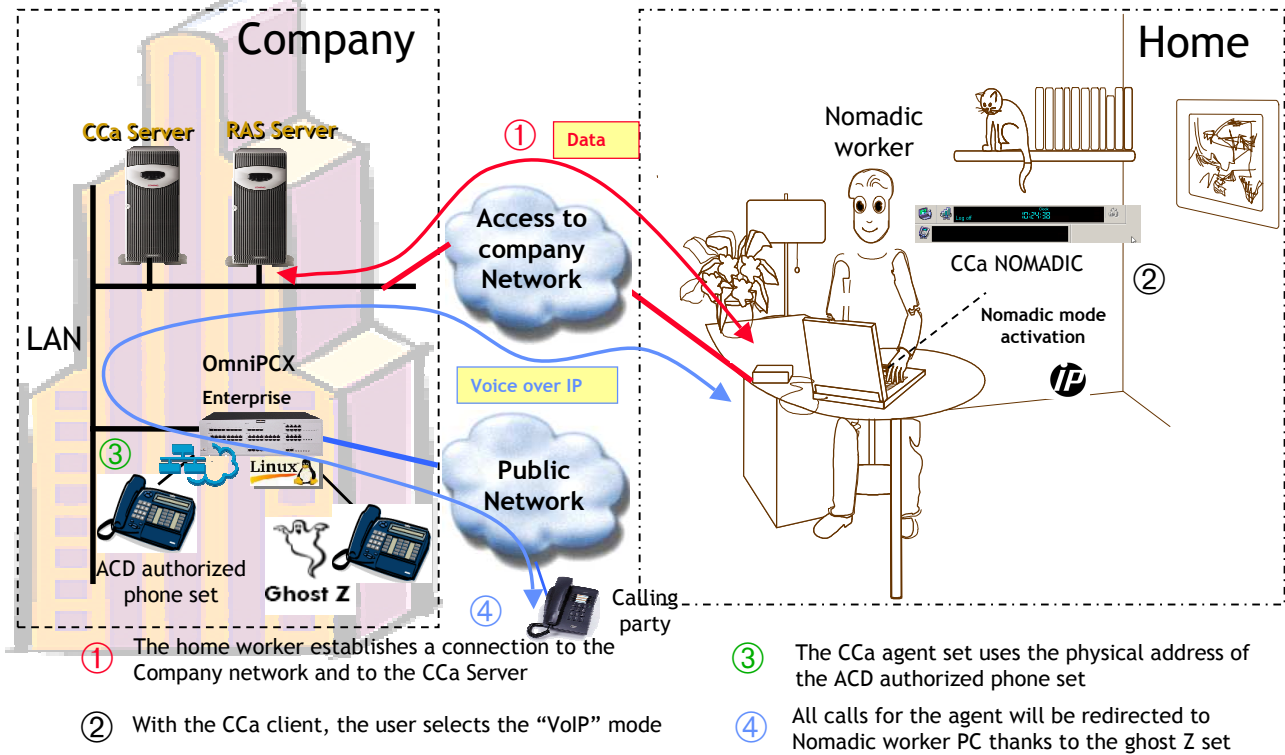
14

Nomadic services Access

The home worker will first connect to the LAN (in direct by LAN/WAN or by modem on RAS server) to start CCagent application. Considering voice, two kinds of Nomadic services will be available:

- **GSM mode:** bringing voice on traditional switched network (public or private network) it needs one line for the voice channel and one line for RAS access (physical or mobile line).
- **Multimedia mode:** bringing voice over internet frames (with INTIP,... board): only LAN access is needed (through local LAN or RAS access).

■ Nomadic mode with VoIP principle



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G711 & G723 algorithms supported
G729 algorithm not supported!!!

■ Creation of ACD authorized phone set

- Go to: « Users »

```
Review/Modify: Users
Node Number (reserved) : 4
Directory Number : 34016
Directory name : Z1 Pro ACD
Directory First Name : Nomadic
Location Node : 4
Shelf Address : 0
Board Address : 1
Equipment Address : 5
Set Type + ANALOG with 4980
ACD station + ACD authorized phone set
CCA Operations + False
A4980 + No 4980
NOMADIC + False
```

- It is needed to create as much ACD authorized phone set (with a physical address) as of nomadic agents
- One must not attach an agent to a ACD authorized phone set used for the nomadic

The ACD authorized phone sets need a physical address. It is thus advised to use Z equipment, because it is not needed to connect a set on this equipment. If an UA equipment is used, it is needed to connect a UA set, if not the equipment is out of service.

■ Creation of Ghost Z

- It is needed to create as much Ghost Z set (without physical address) as of nomadic CCa agents
- Go to: « Users »

Review/Modify: Users

Node Number (reserved) :	4
Directory Number :	34026
Directory name :	Ghost1
Directory First Name :	Nomadic
Location Node :	4
Shelf Address :	255
Board Address :	255
Equipment Address :	255
Set Type +	ANALOG
ACD station +	NO
CCA Operations +	False
A4980 +	No 4980
NOMADIC +	False
Ghost Z +	True
Ghost Z Feature +	Nomadic

■ Creation of agents

- There is no particular management for the Nomadic GSM agents (identical to a traditional CCa agent)
- Go to: « Users »

```
Review/Modify: Users
Node Number (reserved) : 4
Directory Number : 34500

Directory name : agent
Directory First Name : one
Location Node : 4
Shelf Address : 255
Board Address : 255
Equipment Address : 255
Set Type + 4037 (4035 & TSC IP)
ACD Station + Agent
CCA Operations + True
04080 + No 4980
NOMADIC + False
```

- ☐ Do not attach an agent used for the nomadic to an user ACD authorized phone set

NOMADIC: False (it will be turn to True with the OTS server)

■ Declaration of the VOIP gateway

- This VOIP gateway can be an INT IPA board (in case of crystal hardware) or a GD / GA board (in case of common hardware)
- Declaration of the INT IPA board (e.g)
 - Check the daughterboard ! (GIP6, MCV24...)
- Go to: « Shelf / Board »

Review/Modify: Board

```

Node Number (reserved) : 4
Shelf Address : 0
Board Address : 8

Interface Type + INTIPA
Virtual board + NO
Usage State + Idle
Operational State + Disabled
Main/Standby State + Main (Master)
Country Protocol Type + Default
Incidents Teleservice + YES
IP Compression Daughter Board + GIP6x1
No. of Compressors for Gateway : 32
No. of Compressors for IP Devices : 0
  
```

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You can use the command « config shelf N° Board N° -d » in order to display the daughter board type

[4]pcx> config 0 8 -d

Cr	cpl	Hardware type	cpl state	coupler ID
0	8	INTIPA(cpl mode)	IN SERVICE	3BA23193ABAD02
0	8	One Board_GIP6	IN SERVICE	NO PCMS CODE

■ Declaration of the VOIP gateway

● Management of the INT IPA board IP configuration

- Go to: « Shelf / Board / Ethernet parameters »

Review/Modify: Ethernet Parameters

Node Number (reserved) : 4
Shelf Address : 0
Board Address : 8
Shelf - Board Address : 0-8

Interface Type + INTIPA
Board IP Address : 10.10.4.35
IP NetMask : 255.255.0.0
Default Gateway IP Address : 0.0.0.0
IP Quality of service : 0
Board Ethernet Address : 00:80:9f:04:fb:d8
Interworking with Gatekeeper + NO
Gatekeeper ID : -1
Numb. of sig. channels IP Phones : 0
Numb. of sig. channels inter-ACT : 0
IP Domain Number : 0
E164 Number List Index : -1
Full duplex + NO

- The INT IP board IP configuration must be compatible with the CPU IP configuration

■ IP trunk group management

- Go to: « Trunk groups »

```
Review/Modify: Trunk Groups
Node Number (reserved) : 4
Trunk Group ID : 55
Trunk Group Type + T2
Trunk Group Name : IP Trunk
Number Compatible With : -1
Node number : 1
Q931 Signal variant + ISDN all countries
Number Of Digits To Send : 0
T2 Specification + IP
```

- Go to: « Trunk groups / Trunk group »

```
Review/Modify: Trunk Group
Node Number (reserved) : 4
Trunk Group ID : 55
Instance (reserved) : 1
Trunk Group Type + T2
Quality profile for voice over IP + Profile £1
IP Compression Type + Default
B Channel Choice + YES
```

■ IP trunk group management

● Trunks creation

- Go to: « Trunk groups / Trunk group / T2,T1,T0 Access »

```
Review/Modify: T2/T1/T0 Access
Node Number (reserved) : 4
Trunk Group ID : 55
Instance (reserved) : 1
Physical Address : 0-8-0

Access Type : T2
Access Cluster ID : -1
Time Slots T2 : 01111111111111111011111111111111
```

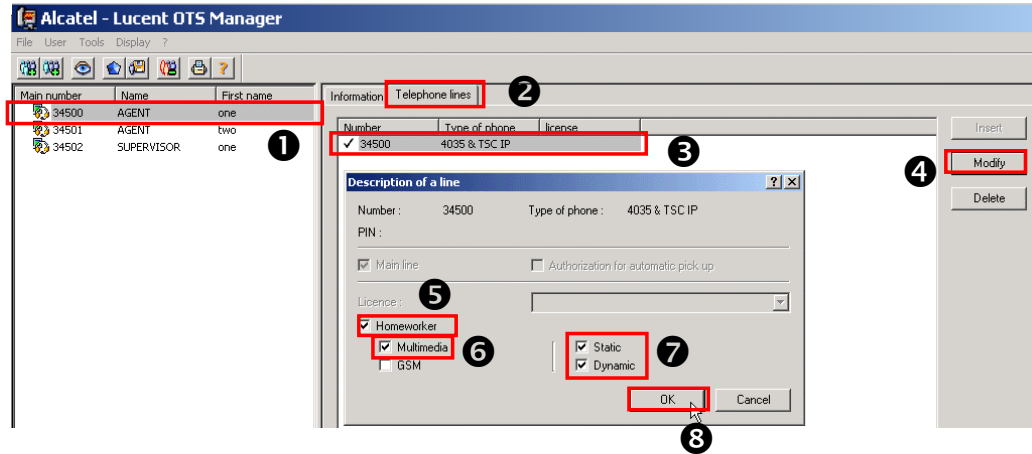
- Note:

- The physical address corresponds to the the VOIP gateway address (GD, GA, INT IPA board)

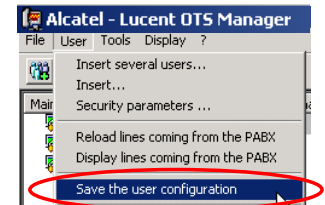
Direct RTP feature is available if software releases (PCX & CCa) are at least R7.
If < R7, direct RTP not supported

■ Declaration of agents as IP Nomadic

- The declaration is done via the OTS Manager



- Don't forget to save the users configuration

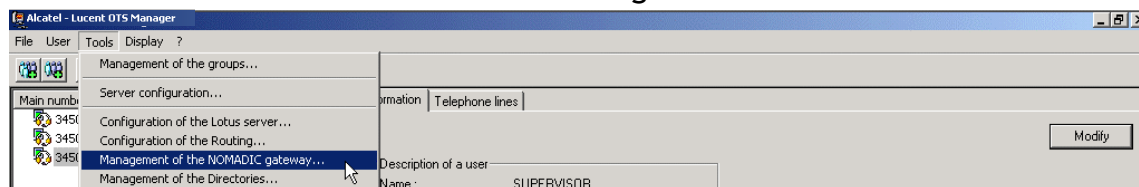


Remarks

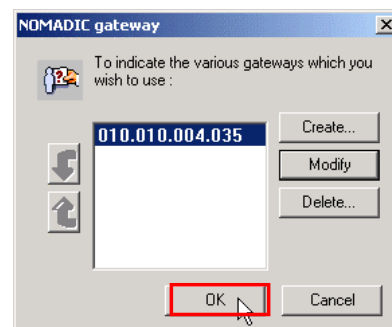
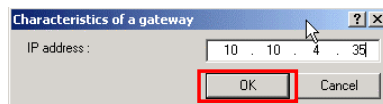
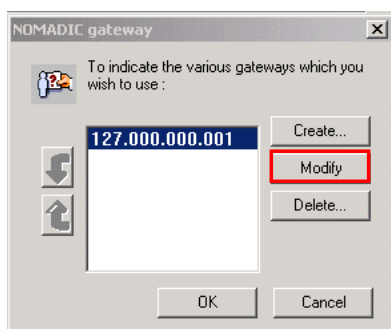
- If the **Dynamic** box is validated the IP compressor is used only during the incoming or outgoing calls. That allows to optimize the IP resources.
- If the **Static** box is validated the IP compressor is used permanently.

■ Declaration of the gateway in the OTS server

- The declaration is done via the OTS Manager

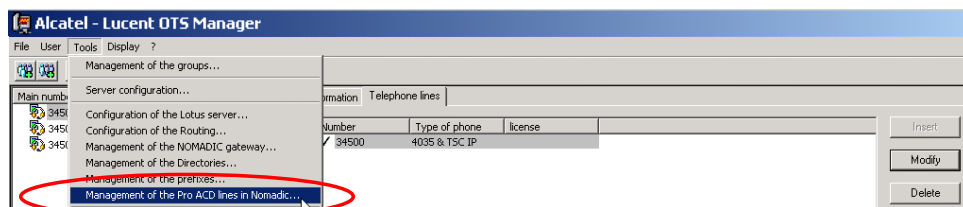


- Specify as gateway the IP address of the INT IP board



■ Declaration of ACD authorized phone set in Nomadic in the OTS server

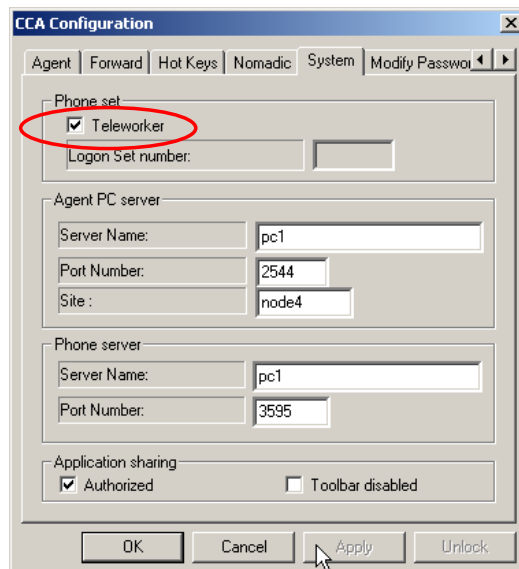
- The declaration is done via the OTS Manager



- Select the sets declared in the PCX database which will be used for NOMADIC

Number	Name	First name	Type of phone	PBX
<input type="checkbox"/> 34000	pro acd	one	4035T	pcx
<input type="checkbox"/> 34001	pro acd	two	4035T	pcx
<input type="checkbox"/> 34002	pro acd	three	4035T	pcx
<input checked="" type="checkbox"/> 34016	z1 pro acd	nomadic	ANALOG with 4980	pcx

- Declaration of the CCa agent client as Nomadic agent
 - From the CCa client software, select the « system » tab

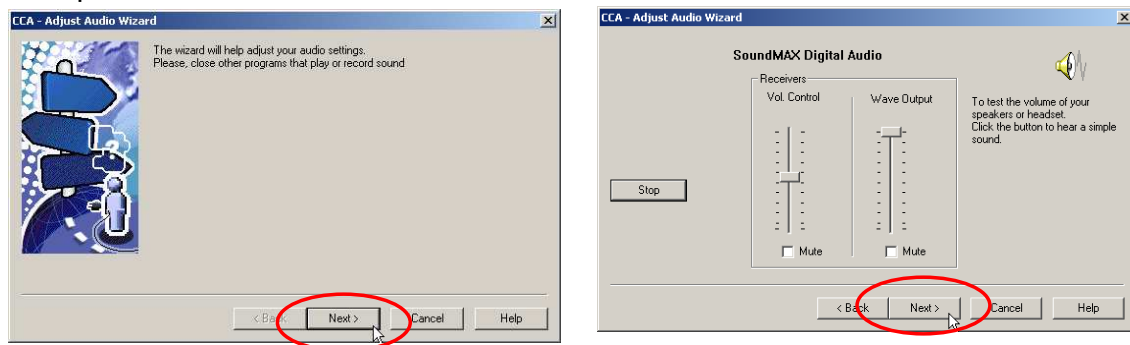


■ Connection of the CCa agent client

● Log on procedure



- Following the first connection of IP CCa agent, the system asks to tune the audio parameters



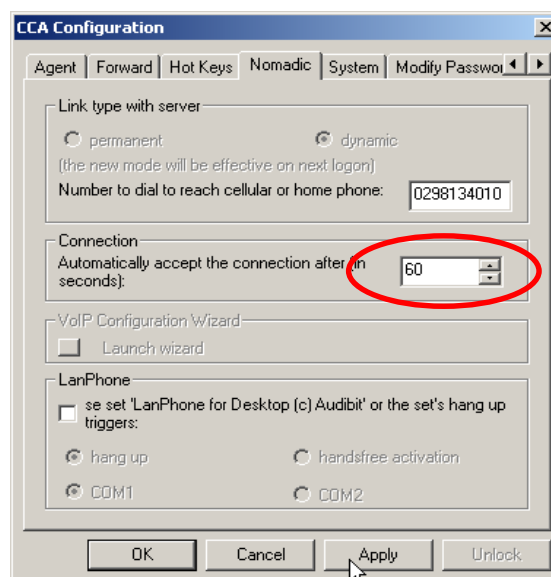
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After the log on, cancel the withdrawal

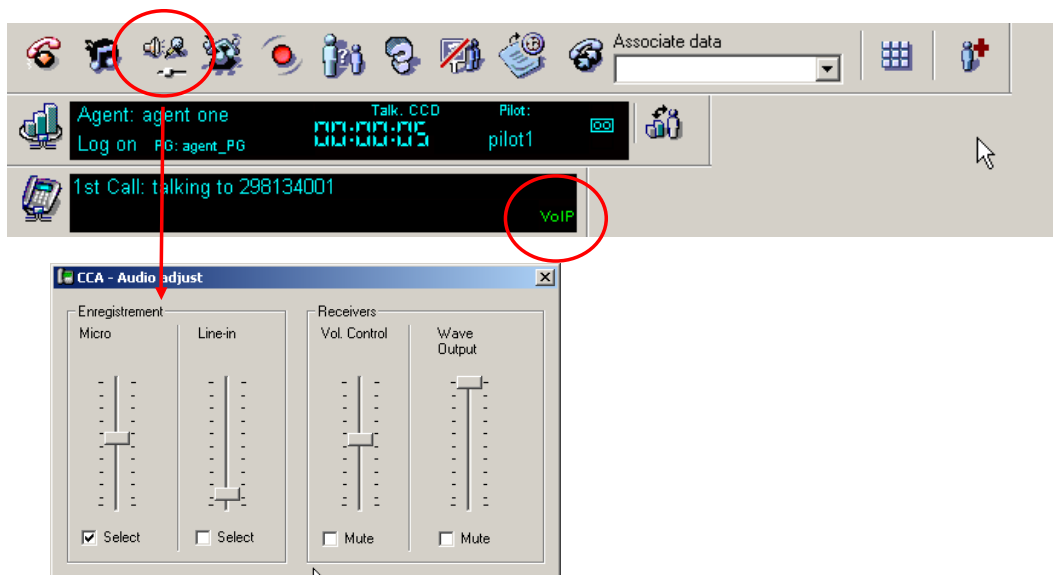


By default, after 60 seconds, the connection will be automatically accepted



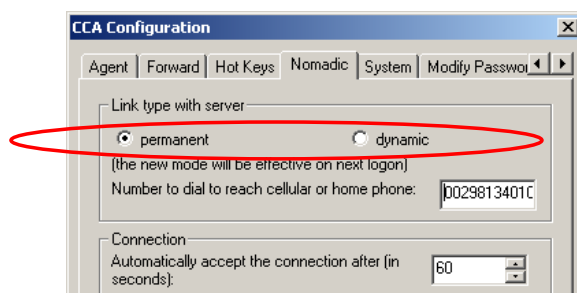
■ Connection of the CCa agent client

- When the tuning is carried out, if it is not satisfactory, it is possible to modify it during the conversation while clicking on the following icon



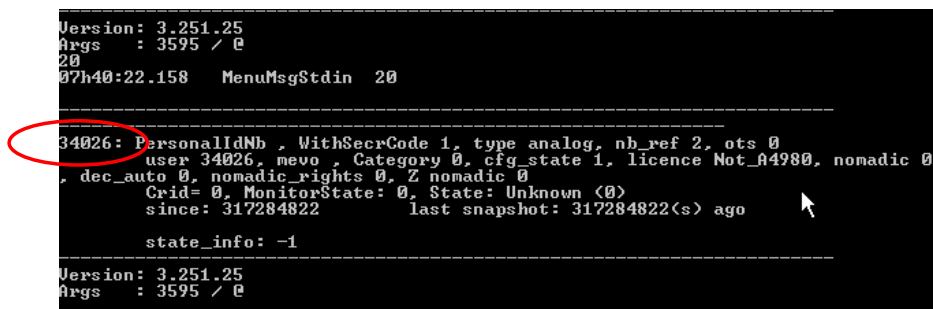
■ CCa client configuration

- If authorized in the OTS Manager tool, the CCa client will be allowed to choose the kind of connection
 - Static (permanent)
 - Dynamic
- The new mode will be effective on next logon



■ Checking of the Ghost Z presence in the OTS server

- Start the OTS maintenance tool
 - Type the command 20, then check the presence:



```
Version: 3.251.25
Args : 3595 / e
20
07h40:22.158 MenuMsgStdin 20

-----
34026: PersonalIdNb , WithSecrCode 1, type analog, nb_ref 2, ots 0
      user 34026, mevo , Category 0, cfg_state 1, licence Not_A4980, nomadic 0
      , dec_auto 0, nomadic_rights 0, Z nomadic 0
      Crid= 0, MonitorState: 0, State: Unknown <0>
      since: 317284822 last snapshot: 317284822(s) ago
      state_info: -1
-----
Version: 3.251.25
Args : 3595 / e
```

- If the Ghost Z does not appear, type the command 131 2998
- Then wait a few minutes and type 20, then check the presence

■ Several commands of maintenance

● To reach the commands it is needed to start the OTS manager console

- 130 2998 Free Z Nomadic
- 131 2998 Load Z Nomadic
- 132 2998 MCDU Reset Nomad User
- 121 2998 0 Status of the Pro-ACD Nomadic
- 121 2998 1 Release of all Pro-ACD Nomadic
- 121 2998 2 Reset. It is needed to restart the OTS service
- 6 number Get the configuration of Ghost Z or agent
- 7 number Status of the agent
- 0 p -tacapi Active the ACAP trace
- 0 r -tacapi Inhibit the ACAP trace
- 0 p -tnomad Active the Nomadic trace
- 0 r -tnomad Inhibit the Nomadic trace
- 0 p -tcsta Active the CSTA trace
- 0 r -tcsta Inhibit the CSTA trace
- 300 Status of server
- 20 List the Ghost Z

HANDS-ON EXERCISES

OBJECTIVE

- To learn how to manage the CCa NOMADIC GSM and the CCa NOMADIC IP

MANAGEMENT

1. CCa NOMADIC GSM
 - 1.1. Create some ACD authorized phone sets, with “set type = Analog with 4980”
 - 1.2. Create some ghost Z sets
 - 1.3. Check that the CCa agents are well managed
 - 1.4. By using the OTS Manager tool:
 - 1.4.1. Enable the CCa agent 3X500 to use the NOMADIC GSM mode (in static or dynamic mode)
 - 1.4.2. Manage the ACD authorized phone sets in NOMADIC
 - 1.5. Validate the “teleworker” option in the CCa client
 - 1.6. Try to log on (with both mode: static or dynamic)
2. CCa NOMADIC IP
 - 2.1. Create some ACD authorized phone sets, with “set type = Analog with 4980”
 - 2.2. Create some ghost Z sets
 - 2.3. Check that the CCa agents are well managed
 - 2.4. Create the VOIP gateway (INTIP A board or GD or GA board)
 - 2.5. Create the IP trunk group

- 2.6. By using the OTS Manager tool:
 - 2.6.1. Enable the CCa agent 3X500 to use the NOMADIC IP mode (in static or dynamic mode)
 - 2.6.2. Declare the NOMADIC gateway
 - 2.6.3. Manage the ACD authorized phone sets in NOMADIC
- 2.7. Validate the “teleworker” option in the CCa client
- 2.8. Try to log on (with both mode: static or dynamic)

3. Maintenance

- 3.1. Check the ghost Z sets presence in the OTS server
- 3.2. Display the status of the Pro ACD NOMADIC set
- 3.3. Release all the Pro ACD NOMADIC set
- 3.4. Display the agent status
- 3.5. Display the OTS server status

HANDS-ON EXERCISES SOLUTIONS

OBJECTIVE

- To learn how to manage the CCa NOMADIC GSM and the CCa NOMADIC IP

MANAGEMENT

All the procedure is explained step by step in the training courseware

1. CCa NOMADIC GSM

- 1.1. Create some ACD authorized phone sets, with “set type = Analog with 4980”
Go to “Users”

```
Review/Modify: Users
Node Number (reserved) : 4
Directory Number : 34016

Directory name : Z1 Pro ACD
Directory First Name : Nomadic
Location Node : 4
Shelf Address : 0
Board Address : 1
Equipment Address : 5
Set Type + ANALOG with 4980
ACD station + ACD authorized phone set
CCA Operations + False
A4980 + No 4980
NOMADIC + False
```

- 1.2. Create some ghost Z sets
Go to “Users”

```
Review/Modify: Users
Node Number (reserved) : 4
Directory Number : 34026

Directory name : Ghost1
Directory First Name : Nomadic
Location Node : 4
Shelf Address : 255
Board Address : 255
Equipment Address : 255
Set Type + ANALOG
ACD station + NO
CCA Operations + False
A4980 + No 4980
NOMADIC + False
Ghost Z + True
Ghost Z Feature + Nomadic
```

- 1.3. Check that the CCa agents are well managed
Go to “Users”

Review/Modify: Users

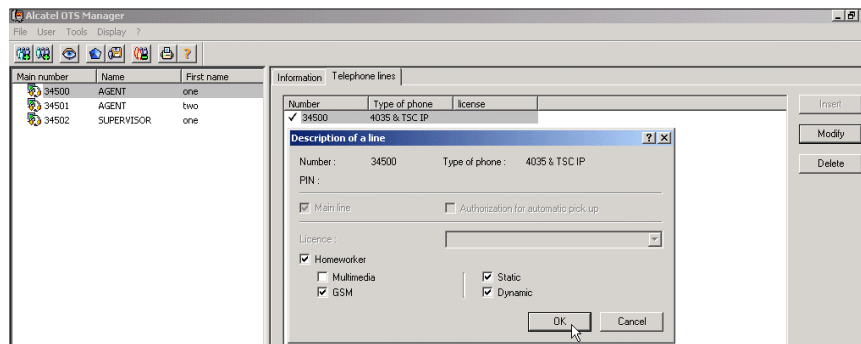
```

Node Number (reserved) : 4
Directory Number : 34500

Directory name : agent
Directory First Name : one
Location Node : 4
Shelf Address : 255
Board Address : 255
Equipment Address : 255
Set Type : 4037 (4035 & TSC IP)
ACD Station : Agent
CCA Operations : True
No : 4980
NOMADIC : False
    
```

- 1.4. By using the OTS Manager tool:
Run the OTS Manager tool by using:
Start / Programs / Alcatel OmniPCX OTS / Maintenance / OTS Maintenance

- 1.4.1. Enable the CCa agent 3X500 to use the NOMADIC GSM mode (in static or dynamic mode)



Alcatel OTS Manager

Main number	Name	First name
34500	AGENT	one
34501	AGENT	two
34502	SUPERVISOR	one

Information: Telephone lines

Number	Type of phone	license
34500	4035 & TSC IP	

Description of a line

Number : 34500 Type of phone : 4035 & TSC IP
PIN :

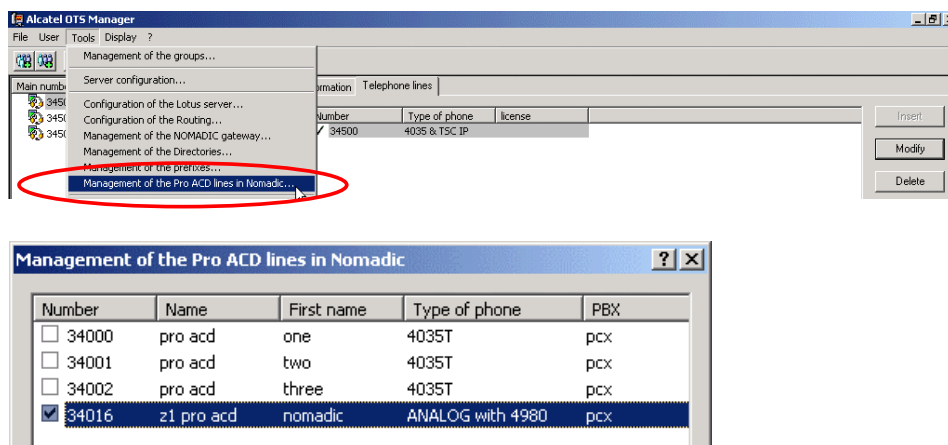
☒ Main line ☐ Authorization for automatic pick up

License :

☒ Homeworker
☐ Multimedia
☒ GSM
☒ Static
☒ Dynamic

OK Cancel

- 1.4.2. Manage the ACD authorized phone sets in NOMADIC



Alcatel OTS Manager

Management of the groups...

Server configuration...

Configuration of the Lotus server...

Configuration of the Routing...

Management of the NOMADIC gateway...

Management of the Directories...

Management of the prefixes...

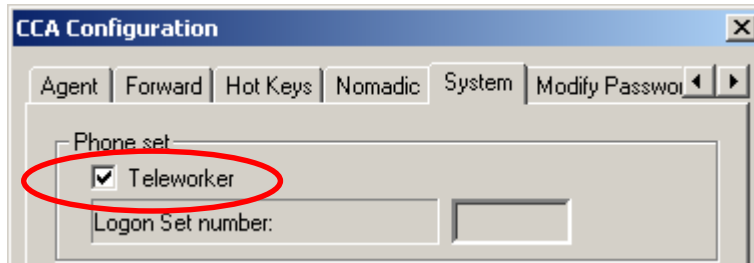
Management of the Pro ACD lines in Nomadic...

Management of the Pro ACD lines in Nomadic

Number	Name	First name	Type of phone	PBX
<input type="checkbox"/> 34000	pro acd	one	4035T	pcx
<input type="checkbox"/> 34001	pro acd	two	4035T	pcx
<input type="checkbox"/> 34002	pro acd	three	4035T	pcx
<input checked="" type="checkbox"/> 34016	z1 pro acd	nomadic	ANALOG with 4980	pcx

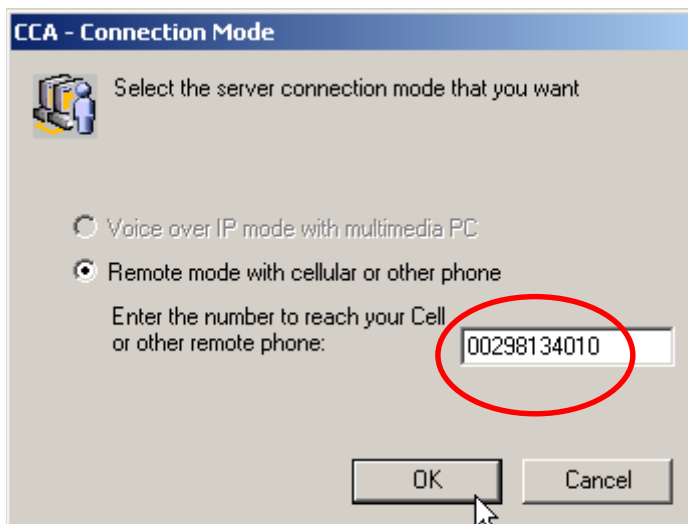
1.5. Validate the “teleworker” option in the CCa client

From the CCa client interface, go to “configuration / parameters / “system” tab”



1.6. Try to log on (with both mode: static or dynamic)

During the logon procedure, you have to specify the remote phone number



2. CCa NOMADIC IP

2.1. Create some ACD authorized phone sets, with “set type = Analog with 4980”

Same management than for the question 1.1

2.2. Create some ghost Z sets

Same management than for the question 1.2

2.3. Check that the CCa agents are well managed

Same management than for the question 1.3

2.4. Create the VOIP gateway (INTIP A board or GD or GA board)
Go to: “Shelf / board”

```
Review/Modify: Board
Node Number (reserved) : 4
Shelf Address : 0
Board Address : 8

Interface Type + INTIPA
Virtual board + NO
Usage State + Idle
Operational State + Disabled
Main/Standby State + Main (Master)
Country Protocol Type + Default
Incidents Teleservice + YES
IP Compression Daughter Board + GIP6x1
No. of Compressors for Gateway : 32
No. of Compressors for IP Devices : 0
```

Go to: “Shelf / board / Ethernet parameters”

```
Review/Modify: Ethernet Parameters
Node Number (reserved) : 4
Shelf Address : 0
Board Address : 8
Shelf - Board Address : 0-8

Interface Type + INTIPA
Board IP Address : 10.10.4.35
IP NetMask : 255.255.0.0
Default Gateway IP Address : 0.0.0.0
IP Quality of service : 0
Board Ethernet Address : 00:80:9f:04:fb:d8
Interworking with Gatekeeper + NO
Gatekeeper ID : -1
Numb. of sig. channels IP Phones : 0
Numb. of sig. channels inter-ACI : 0
IP Domain Number : 0
E164 Number List Index : -1
Full duplex + NO
```

In order to be sure that the IP connection is properly managed and is working correctly, try to ping the INTIPA board from the CPU

2.5. Create the IP trunk group Go to: "Trunk groups"

```

Review/Modify: Trunk Groups
Node Number (reserved) : 4
Trunk Group ID : 55
Trunk Group Type : T2
Trunk Group Name : IP Trunk
Number Compatible With : -1
Node number : 1
Q931 Signal variant : ISDN all countries
Number Of Digits To Send : 0
T2 Specification : IP
  
```

Go to: "Trunk groups / trunk group"

```

Review/Modify: Trunk Group
Node Number (reserved) : 4
Trunk Group ID : 55
Instance (reserved) : 1
Trunk Group Type : T2
Quality profile for voice over IP : Profile £1
IP Compression Type : Default
B Channel Choice : YES
  
```

Create the IP trunks; go to "Trunk groups / trunk group / T2/T1/T0 Access"

```

Review/Modify: T2/T1/T0 Access
Node Number (reserved) : 4
Trunk Group ID : 55
Instance (reserved) : 1
Physical Address : 0-8-0
Access Type : T2
Access Cluster ID : -1
Time Slots T2 : 01111111111111110111111111111111
  
```

2.6. By using the OTS Manager tool:

Start / Programs / Alcatel OmniPCX OTS / Maintenance / OTS Maintenance

2.6.1. Enable the CCa agent 3X500 to use the NOMADIC IP mode (in static or dynamic mode)

Alcatel OTS Manager

Main number	Name	First name
34500	AGENT	one
34501	AGENT	two
34502	SUPERVISOR	one

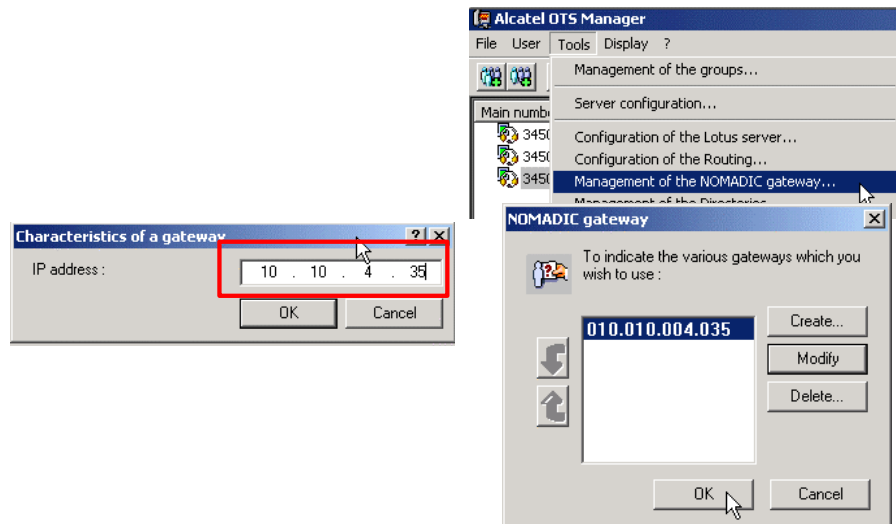
Information Telephone lines

Number	Type of phone	License
34500	4035 & TSC IP	

Description of a line

Number : 34500 Type of phone : 4035 & TSC IP
PIN :
☒ Main line ☐ Authorization for automatic pick up
Access type :
☒ Homeworker ☒ Multimedia ☐ GSM ☐ Static ☐ Dynamic
OK Cancel

2.6.2. Declare the NOMADIC gateway



Declare the IP address of the VOIP gateway (INT IP A board)

2.6.3. Manage the ACD authorized phone sets in NOMADIC

Same management than for the question 1.4.2

2.7. Validate the “teleworker” option in the CCa client

Same management than for the question 1.5

2.8. Try to log on (with both mode: static or dynamic)

3. Maintenance

Run the OTS Manager tool by using:

Start / Programs / Alcatel OmniPCX OTS / Maintenance / OTS Maintenance

3.1. Check the ghost Z sets presence in the OTS server

Option 20

3.2. Display the status of the Pro ACD NOMADIC set

Option 121 2998 0

3.3. Release all the Pro ACD NOMADIC set

Option 121 2998 1

3.4. Display the agent status

Option 7 34500 (7 + agent number)

3.5. Display the OTS server status

Option 300

Alcatel-Lucent OmniTouch Contact Center Standard Edition



Advanced Call Routing Introduction

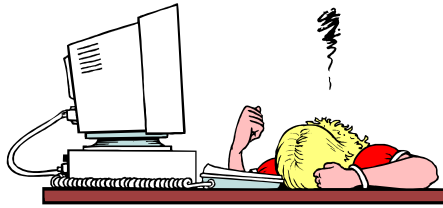


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1

OBJECTIVES

- ◆ To describe the ACR features
- ◆ To describe the ISM rule
- ◆ To describe the last called agent rule
- ◆ To describe the waiting room principles



“When a Customer calls the company, the system should route this call to the agent who answered the last time”

“each agent has different skills (language, area, product,...). How is it possible to route the call to one **AVAILABLE** agent who has got the best skills”

With a “Classical” CCdistribution solution, this requirements implies:

- Several Agent groups (one agent per group)
- Complex monitoring and statistics
- One external application

ACR: Advanced Call Routing

ISM: Individual Skill Mapping, the ISM rule determines the best match between a given call profile and the agent profiles working in the call center

ASM: Agent Selection Module, the agent selection Introduction builds the list of agents suitable to handle a characterized call according to the selection options defined in the associated script for that call profile.

■ Advanced Call Routing feature

- Fully integrated in the OmniTouch CC Standard Edition
- Based on the OmniTouch CC Standard Edition matrix
 - ACR Pilot, waiting ROOM, processing group
- ACR feature is based on ACR script
 - ACR script editor is embedded in the CCs
 - ACR script is attached to ACR pilot (1 script / pilot)
- ACR script is executed by the ASM server
 - ASM: Agent Selection Module
 - An agent list will be provided by the ASM server
 - Agents who match the ACR script needs
- Internal ASM server (“alb” process running on the OXE) or external ASM server (service running on a computer)



An external ASM server can also be used (if connection with an external database is required..)

■ The ACR offers:

- A way to define the customer needs
 - A call profile is used (up to 7 “customer needs”)
 - Call profile used according to call characterization
 - Statistic pilot, IAA, CCIVR, internal database ...
- An individual management of the agent skills
 - Up to 50 skills per agent
 - No group of agents with similar skills



■ The ISM rule provides an agent selection that takes into account:

- High Level Distribution rules: script & ACR database
- Individual skills of the agents: agent profile
- Real needs of customer: call profile

During this ACR introduction, only 2 ACR rules will be covered
An ACR expert training is available for more details

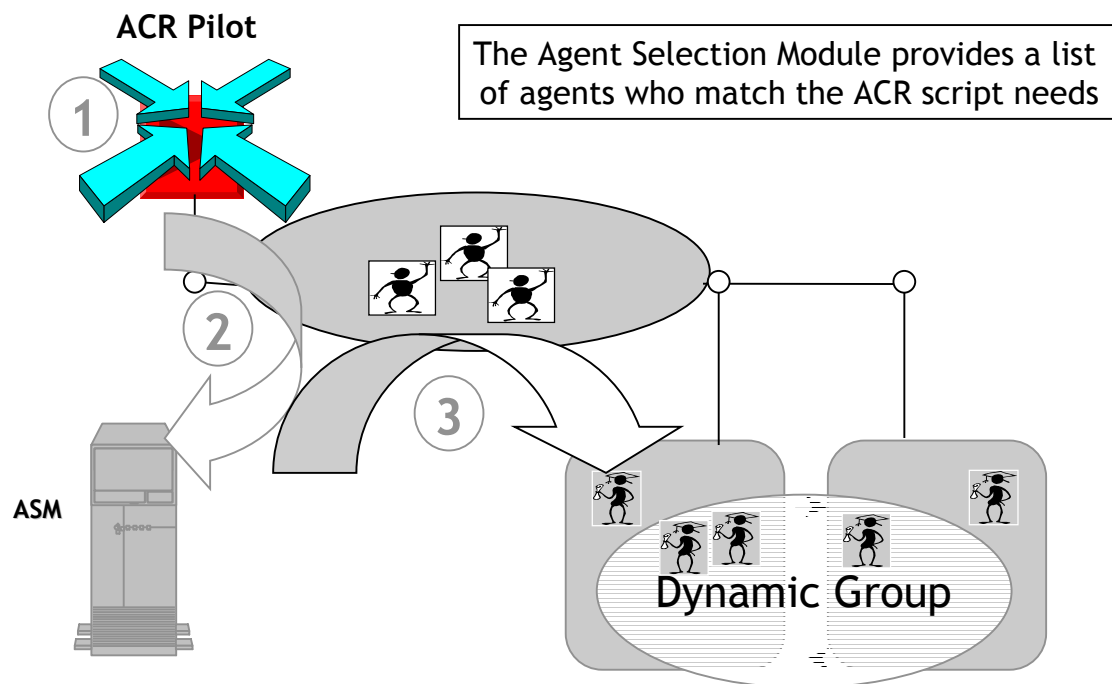
■ The ACR offers:

- A solution to route the customer call to the agent who answered the last time to this customer (“Last_called_agent”)



- The information (Customer N° / Call Tag / Last called agent..) are stored in the ASM server memory

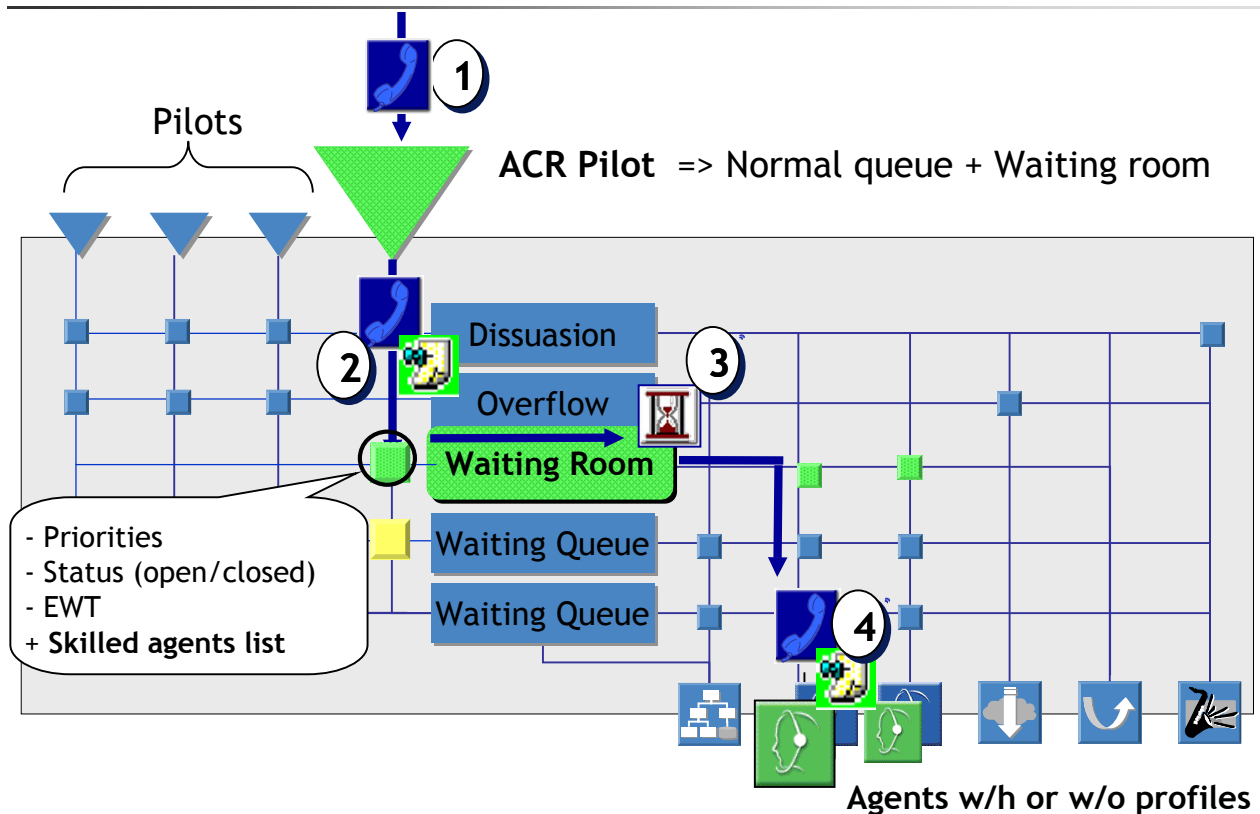
- Waiting rooms are needed in ACR & don't work in FIFO mode



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- 1 Characterization of the call and association of a profile to the call, distribution of the call towards a pilot
- 2 Drawing up of a list of agents suitable to process the call according to the rule of the selection of the agent
- 3 Recovering of the list of agents transmitted by the ASM unit and call distribution to the agents



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1 a call with some skills arrives on a ACR pilot

2 to select a waiting room the system checks

- the status of the directions
- the priority
- the Expected Waiting Table
- agents skills

There is not cohabitation between waiting queues and waiting rooms in the routing rule

There is cohabitation between waiting queues and waiting rooms in the distribution rule

■ ACR provisioning level

- 200 queues (or/and rooms)
- Routing directions
 - 20 queues (or room) / pilot
 - 20 pilots / queue (or room)
- Distribution directions
 - 30 groups / queue (and room)
 - 30 queues (and room) / group
- 20 domains
- 1000 skills
 - 50 skills per agent profile
- 200 filters
- 1000 call profiles
 - 7 skills per call profile
- Number of agents in a calling list (returned by the ASM)
 - Internal ASM: 200
 - External ASM: 280

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ACR Functioning principle



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OBJECTIVES

- ◆ To check the ACR possibilities
- ◆ To understand how ACR works

- A pilot is declared ACR when:
 - One of its direction is a waiting room
 - Active pilot rule is applied (opened, closed or blocked on rule)
- Routing selection is done as for a normal pilot
 - Routing priorities
 - Expected waiting time if same priority (w or w/o handicaps)
- A waiting room, as a normal waiting queue, can be congested
 - Filling index of the Waiting Room
 - Saturation if $EWT > \text{Maximum Waiting time of waiting room}$

■ Waiting room voice guides / parking levels

● Greeting guide + 6 parking levels

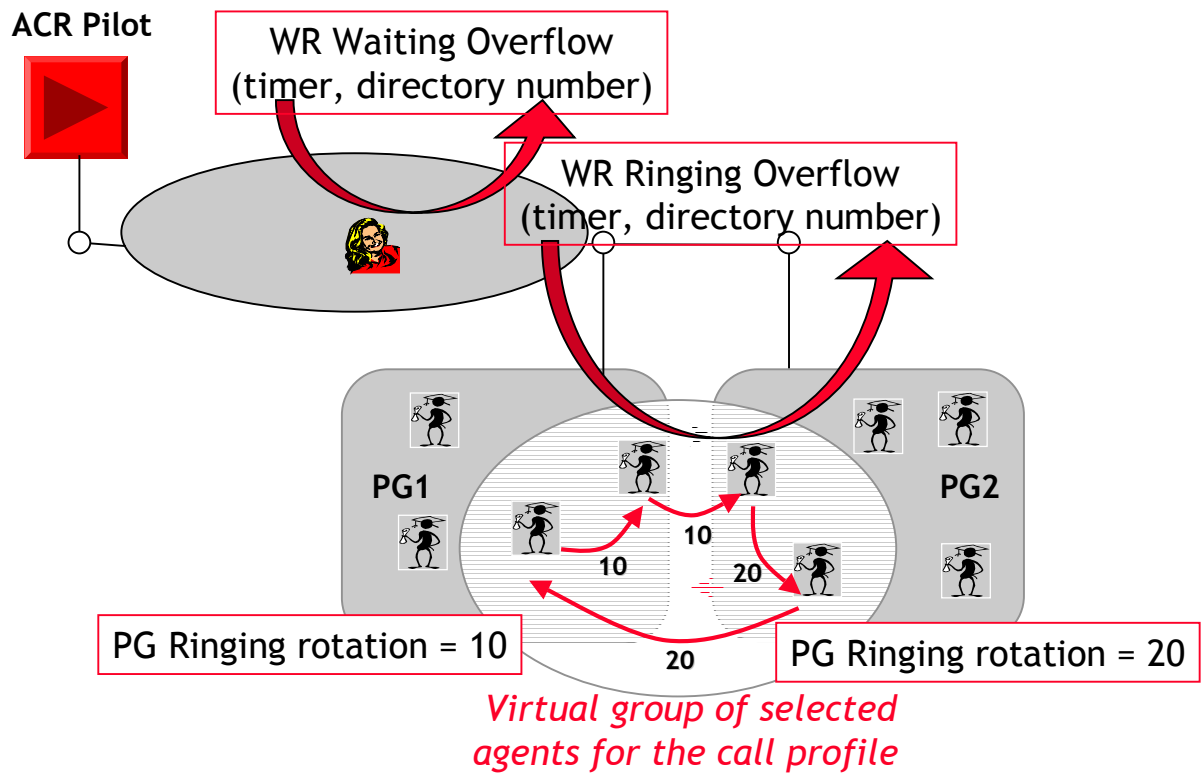
- Voice guides can be played in the ACR pilot language or in the language available in the call profile, if managed...
- Up to the 40 languages in the Alcatel-Lucent OmniPCX Enterprise
 - Multi-languages voice guide

● For each Waiting Rooms parking levels, it's possible to use:

- EWT tables
- Address (CCivr / IAA)
- Voice guide

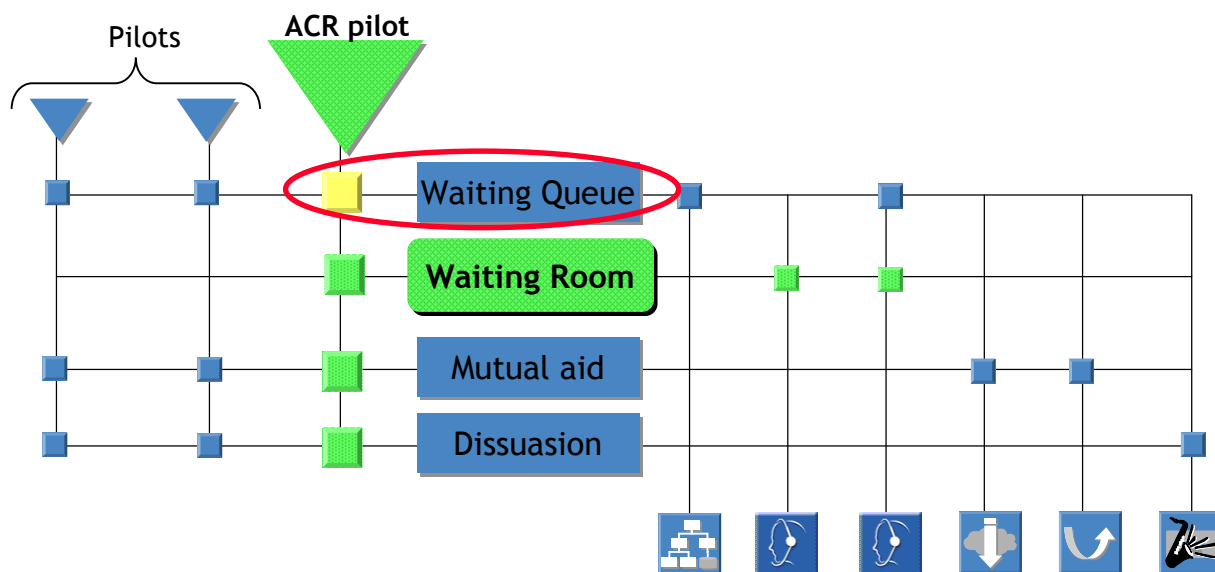
■ Interactive Queuing with Alcatel-Lucent OmniTouch CCivr or IAA

- Contact Center Interactive Voice Response (CCivr)
- Integrated Automated Attendant (IAA)



The ringing overflow number and time out are managed in the waiting room
The ringing rotation is the time out of the physical group of the agent

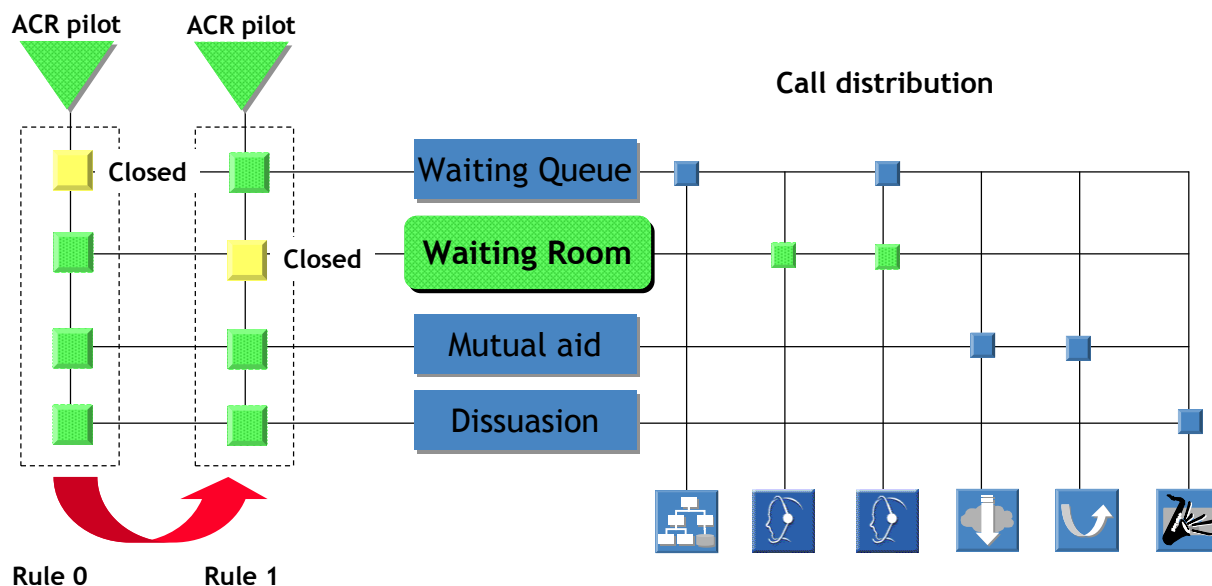
- A pilot is a ACR pilot when at least one direction is a waiting room



- If no agent with skills is logged on, the waiting room is blocked, and the ACR pilot could be blocked!!!

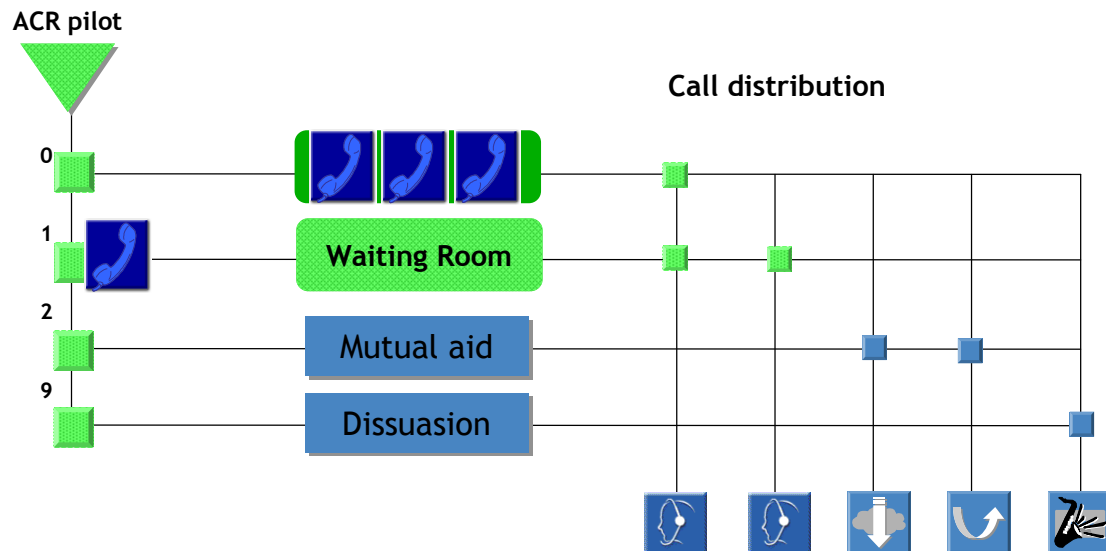
■ ACR pilot: routing rule

- It is not possible to open in a rule a waiting queue and a waiting room at the same time



■ ACR pilot: call routing

- $EWT > MWT \Rightarrow$ the waiting room is congested so another direction is selected



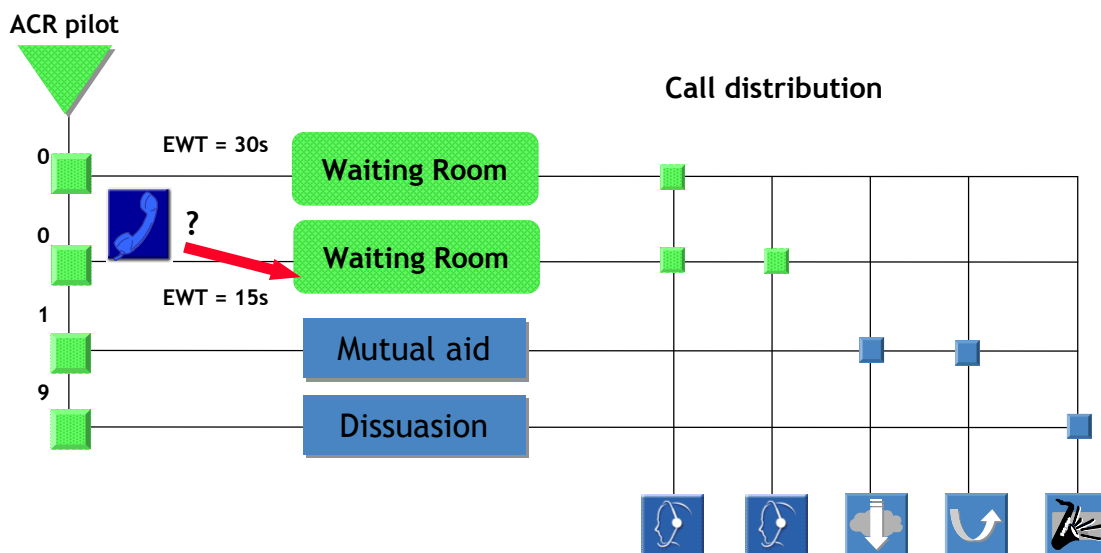
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EWT Expected Waiting Time
MWT: Maximum Waiting Time

■ ACR pilot: call routing

- Directions with same priority
 - Lowest expected waiting time



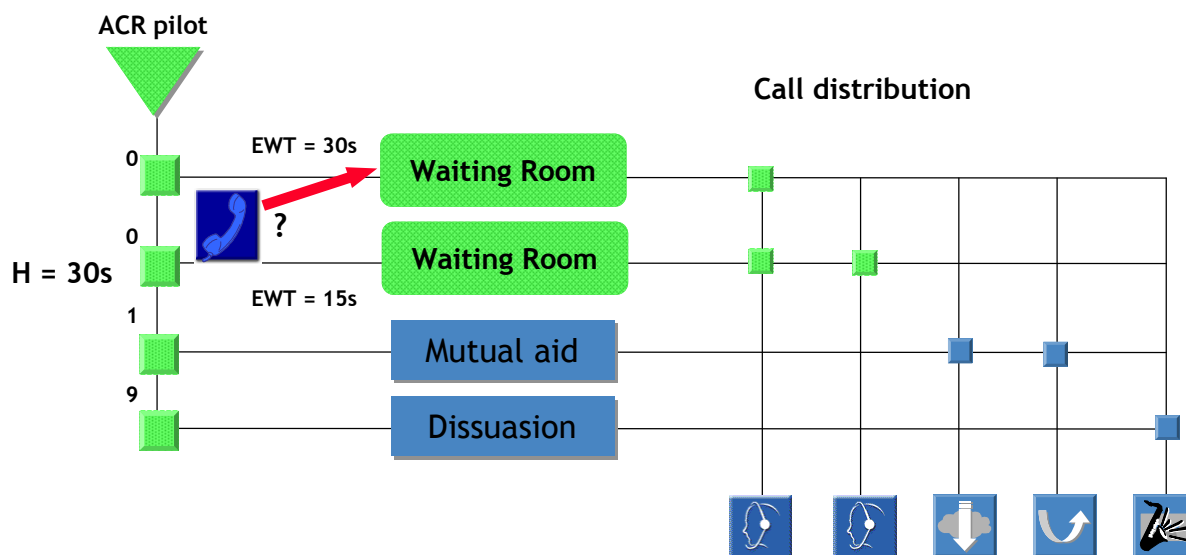
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EWT Expected Waiting Time
MWT: Maximum Waiting Time

■ ACR pilot: call routing

- Directions with same priority and with handicap
 - Lowest (EWT + Handicap)



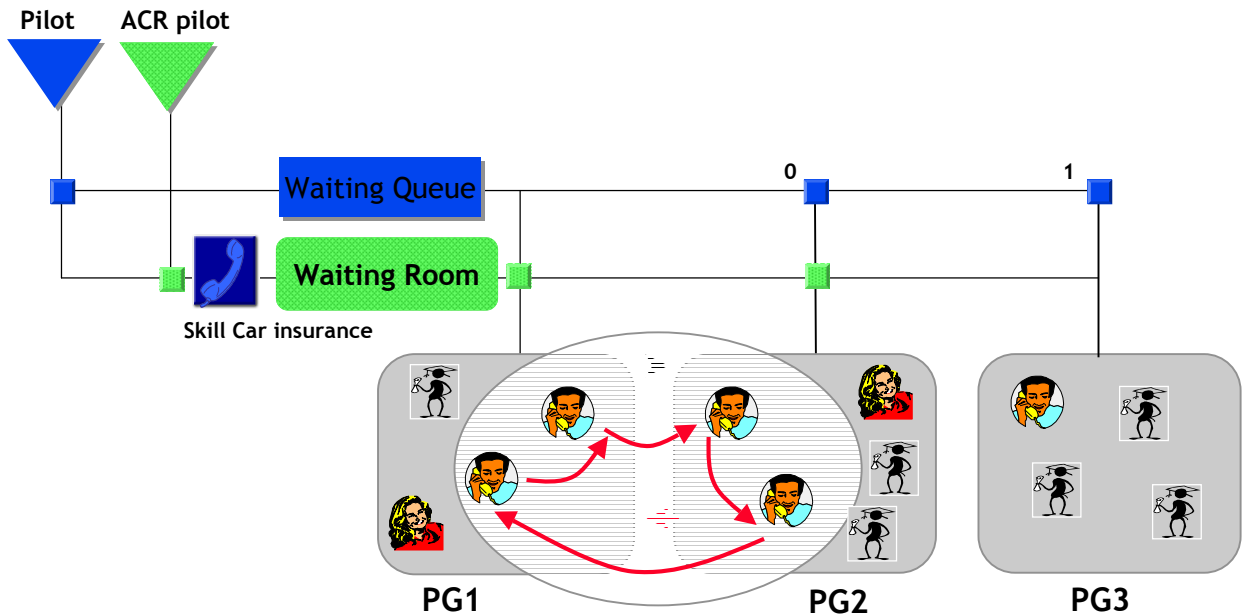
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EWT Expected Waiting Time
MWT: Maximum Waiting Time

■ Waiting room: resource selection

- A dynamic PG is created downstream the WQ according to the call profile :
 - So no resource selection priority management



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Home insurance



Car insurance



No skills



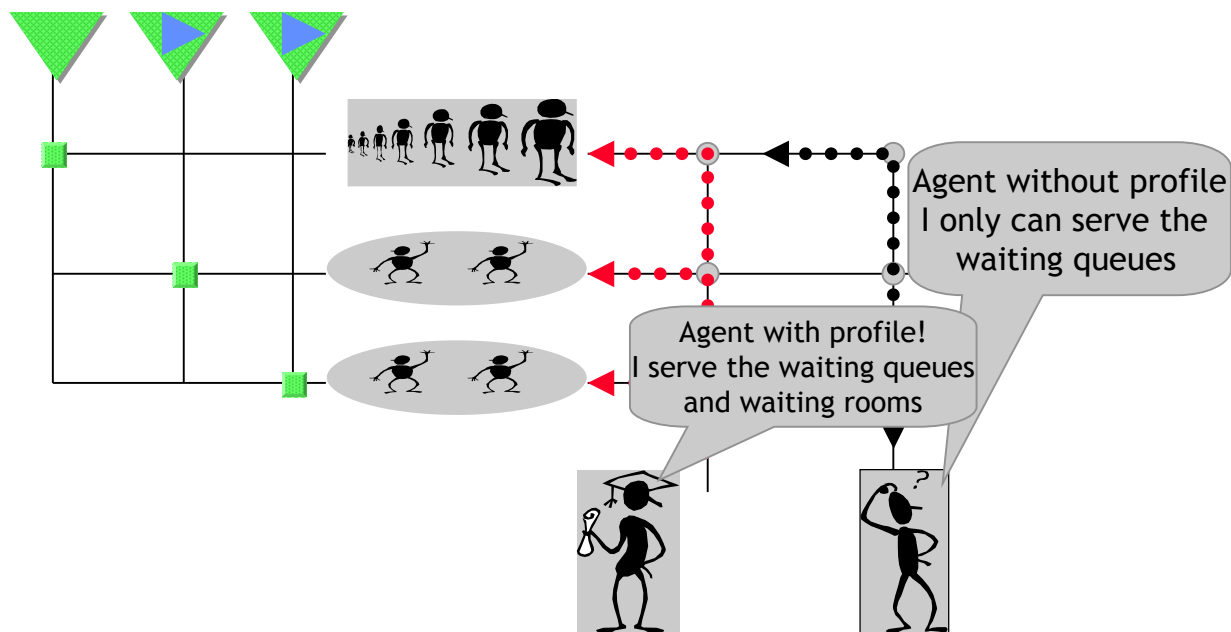
If the direction is closed the agent is not selected

The selection mode in the dynamic group could be modified in the script (by default it is according to the script)

The agents are sorted in the script

■ Waiting room: call selection

Pilot ACR Pilots



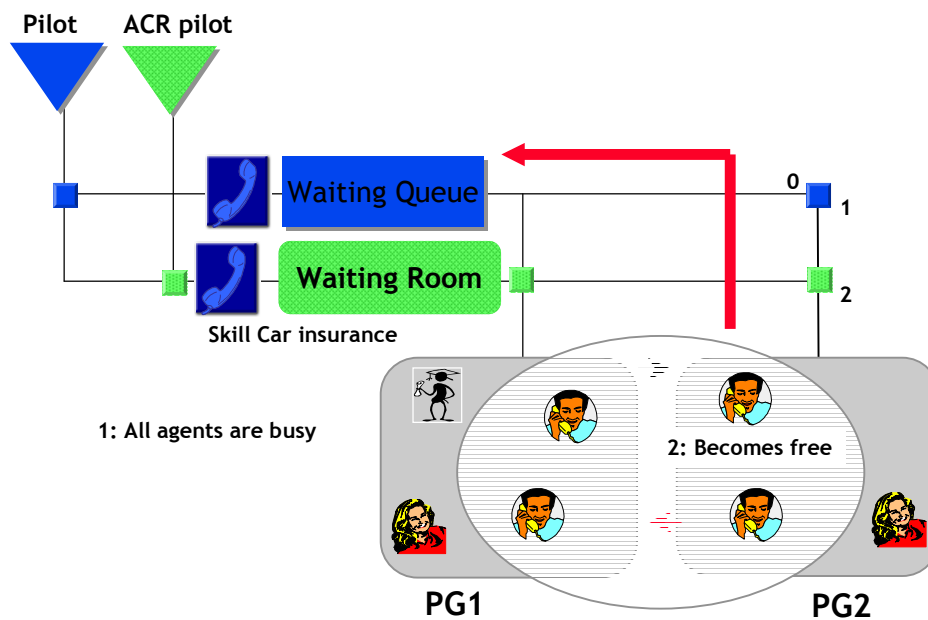
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An agent without a profile can not served a waiting room but an agent with a profile can served a waiting room or a waiting queue with the same priority

■ Waiting room: call selection

● Different priorities



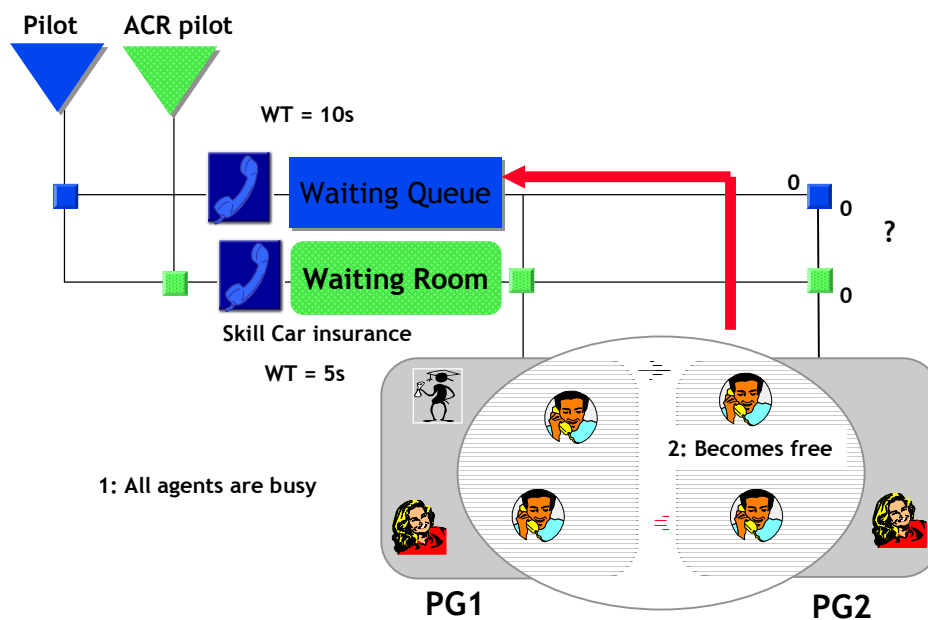
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12




■ Waiting room: call selection


- The directions have the same priority
 - Maximum Real Waiting Time



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Home insurance 

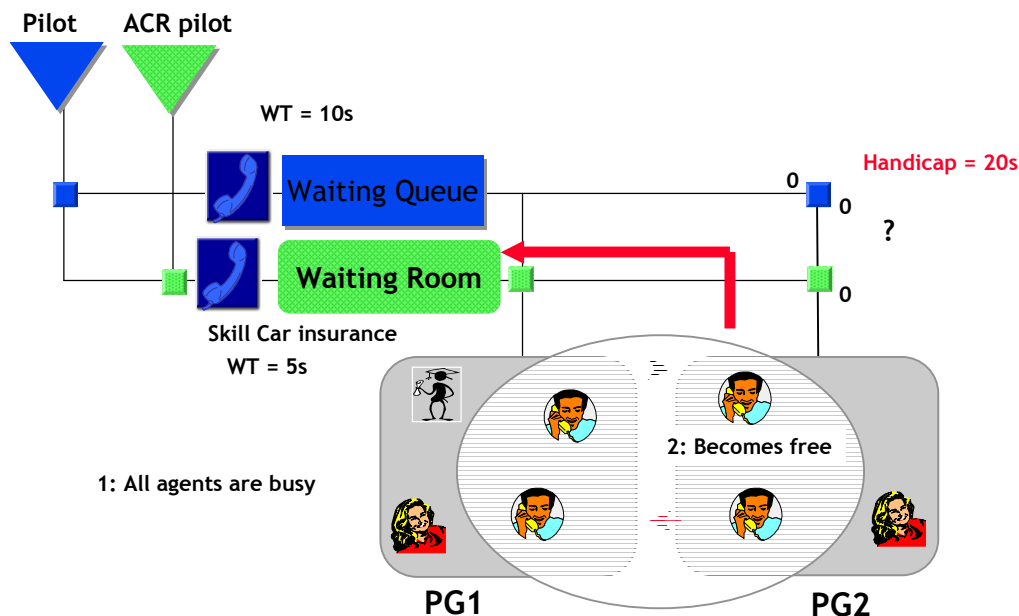
Car insurance 

No skills 

WT: Waiting Time

■ Waiting room: call selection

- Direction has a handicap
 - Maximum (Real waiting time - Handicap)



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Home insurance



Car insurance

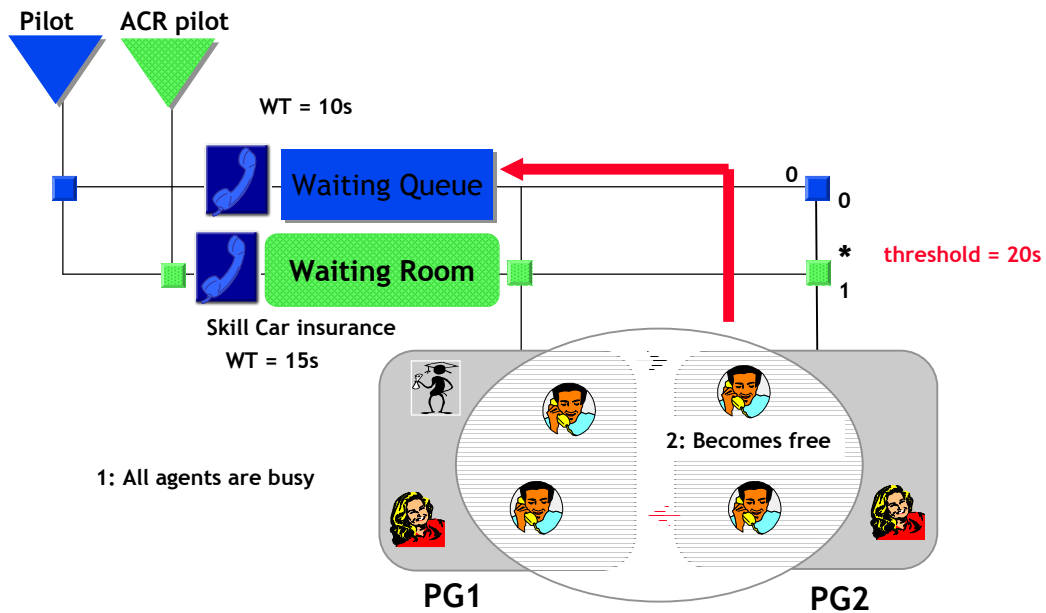


No skills



WT: Waiting Time

- Waiting room: call selection
 - Direction has a distribution threshold
 - Used for resource selection and call selection



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CCsupervision & ACR



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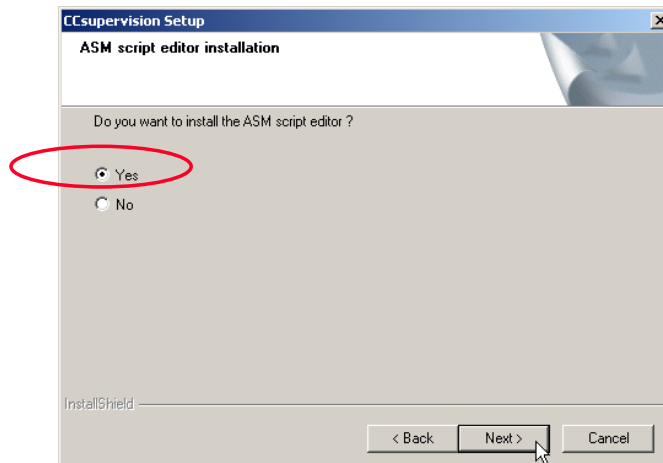
1

OBJECTIVES

- ◆ To check the features of the CCsupervision according to the ACR
- ◆ To add/modify/remove some skills from the CCs interface

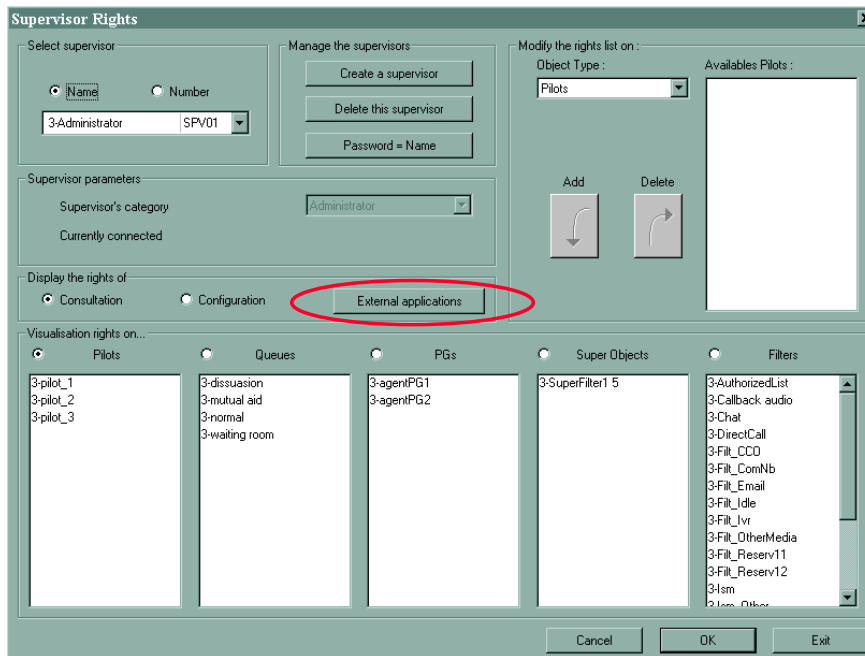
- CCs installation
 - Module to install
- Supervisor rights
 - External application
- Agent skills configuration
- Statistics
 - Last received calls, Excel statistics
- Real time information
 - Filter
 - Waiting room
 - Team and PG agents
 - Agents

- During the CCs software installation, the ASM script editor component has to be selected

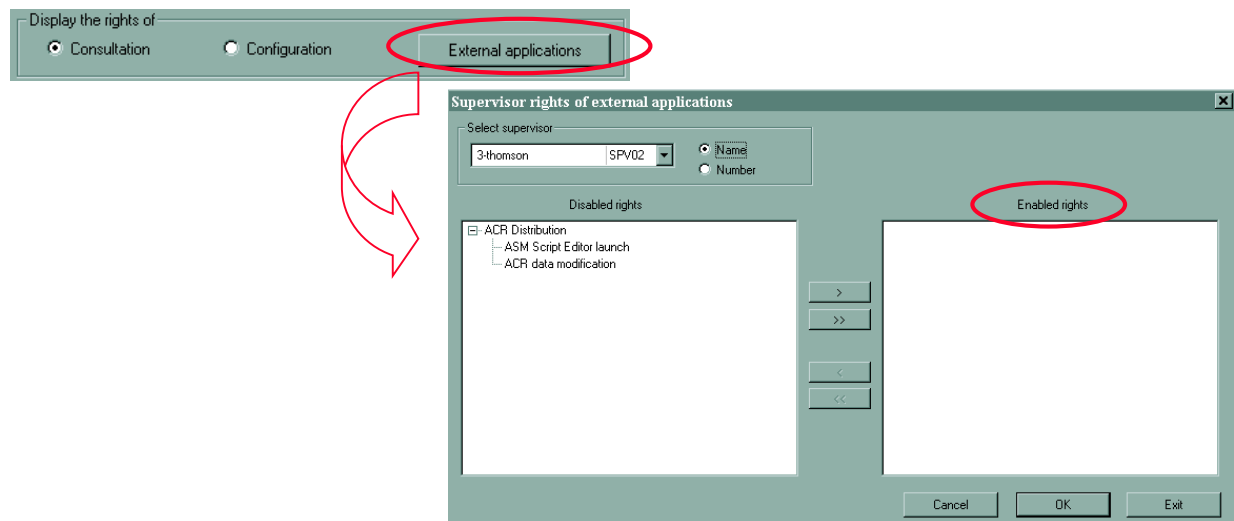


- This allows you, according to your rights, to:
 - Create ACR script
 - Manage the ACR data (call profile, internal DB, ...)

- Supervisor rights
 - Configurations/ Supervisor rights



- Supervisor rights
 - Administrator: has all rights
 - Supervisor: rights have to be granted
- ACR rights for the supervisor



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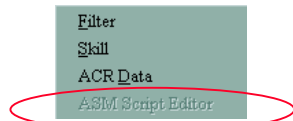
5

Supervisor can't:

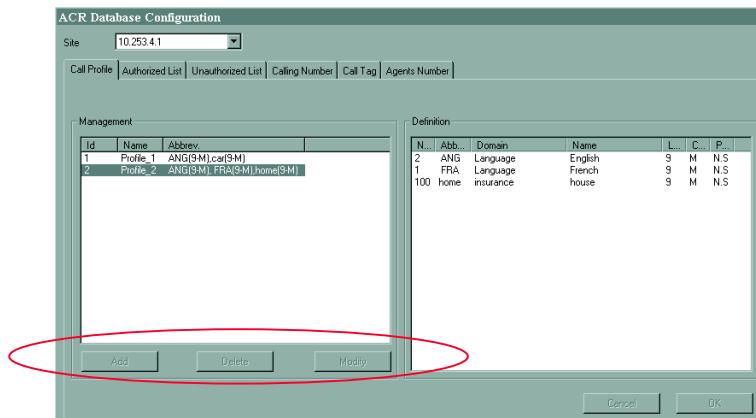
- modify the real time refresh frequency (Configurations/ System)
- add/ delete some filters
- add/ modify/ delete some skills (domain and skills)
- add/ modify/ delete supervisors, the supervisor's rights (Supervisor rights)

■ No right enabled

- Configurations/ Advanced Call Routing

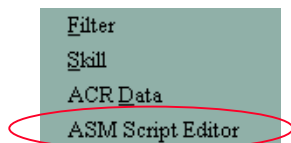


- Configurations/ Advanced Call Routing/ ACR Data

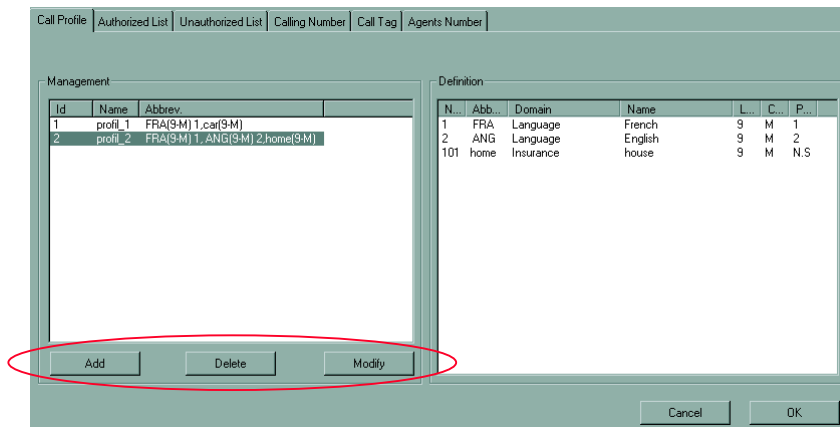


■ Rights enabled

- Configurations/ Advanced Call Routing



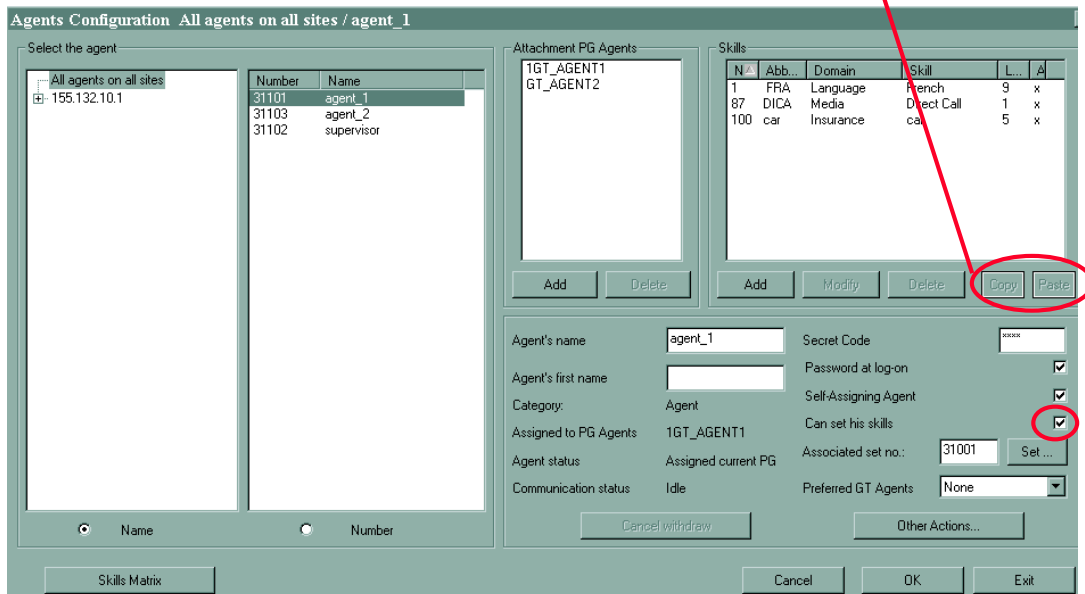
- Configurations/ Advanced Call Routing/ ACR Data



■ Skills configuration

● Configurations/ Agent

Copy and paste skills



The screenshot shows the 'Agents Configuration' window for 'All agents on all sites / agent_1'. It features a 'Select the agent' list on the left, a 'Skills' table on the right, and a configuration form at the bottom. A red arrow points from the 'Copy and paste skills' box to the 'Copy' and 'Paste' buttons in the Skills section. The 'Can set his skills' checkbox in the configuration form is also checked and circled in red.

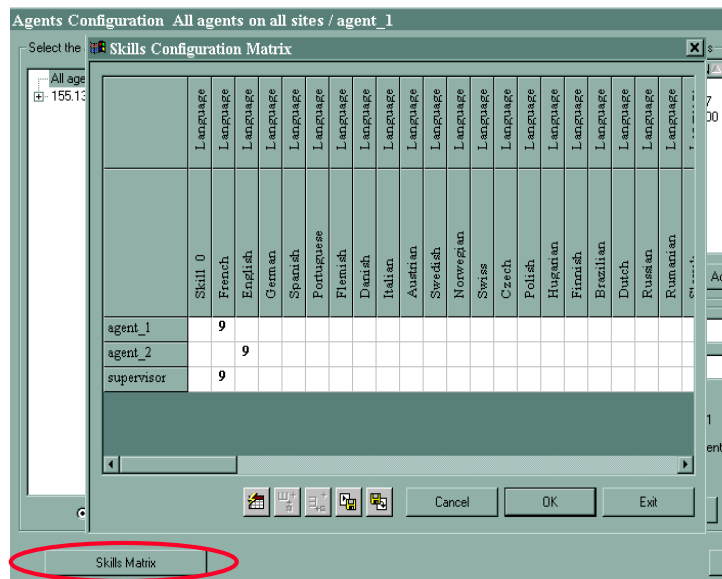
N	Abb...	Domain	Skill	L...	A
1	FRA	Language	French	9	x
87	DICA	Media	Direct Call	1	x
100	car	Insurance	ca	5	x

- Up to 50 skills per agent

The agent skills management is done directly in the agent configuration window.
Agent can have the right to access to his skills management using the phone set.
Skills management easier thanks to the skills matrix.

■ Skills configuration (Next)

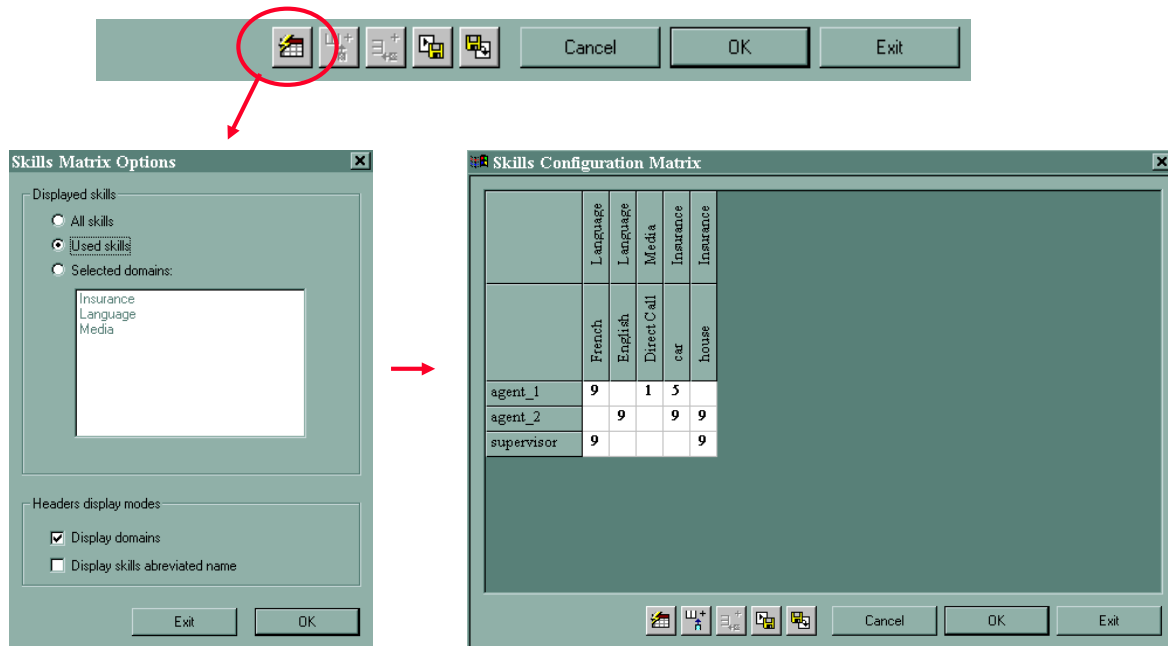
● Skills matrix



- ☐ Easier to manage
- ☐ Quicker to manage

■ Skills configuration (Next)

● Skills matrix



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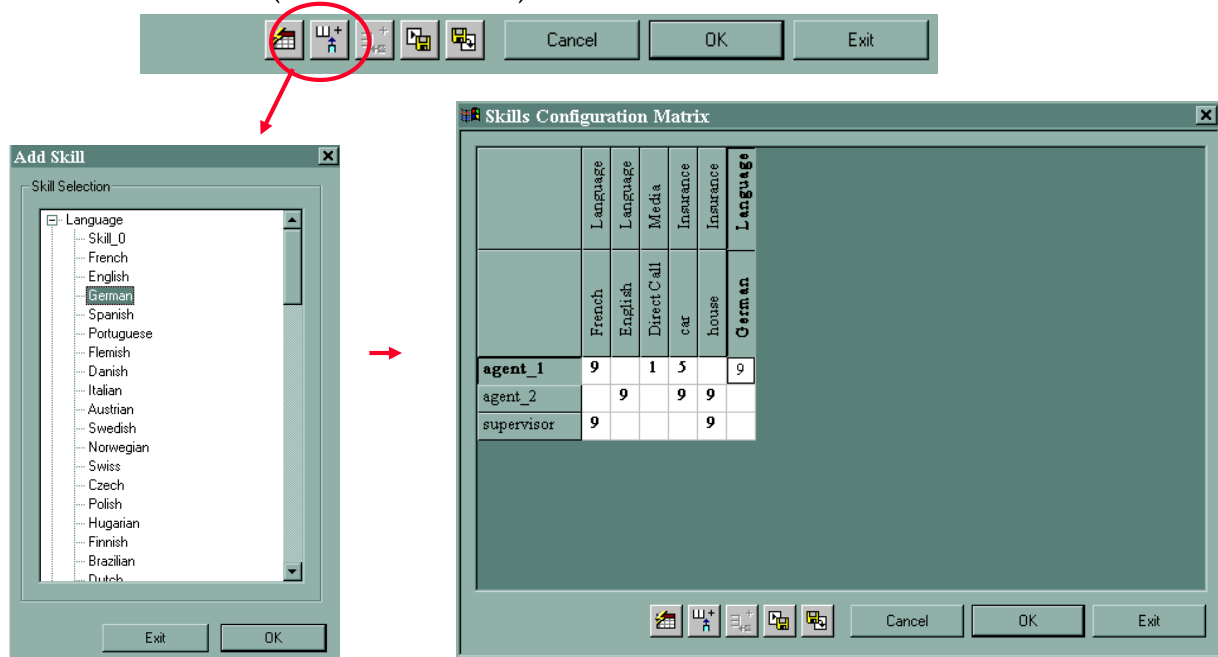
In the configuration window we now manage the agent skills for the agent profile.

Possibility to set or not his skills with his set.

The skill matrix allow you to manage or modify the agent skills directly through this window.

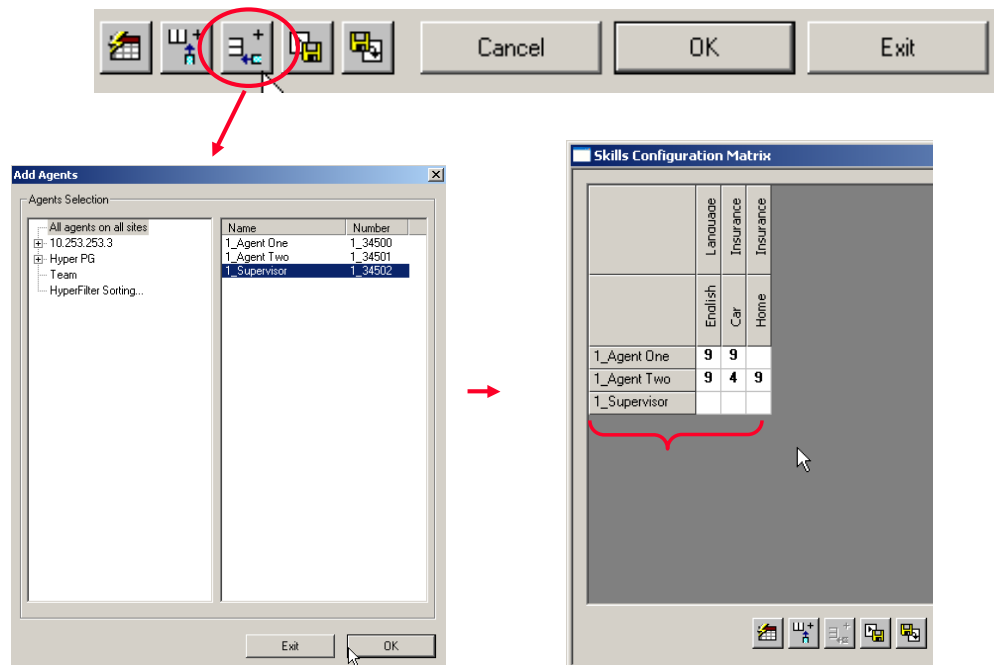
■ Skills configuration (Next)

- Add one skill (for visualization)



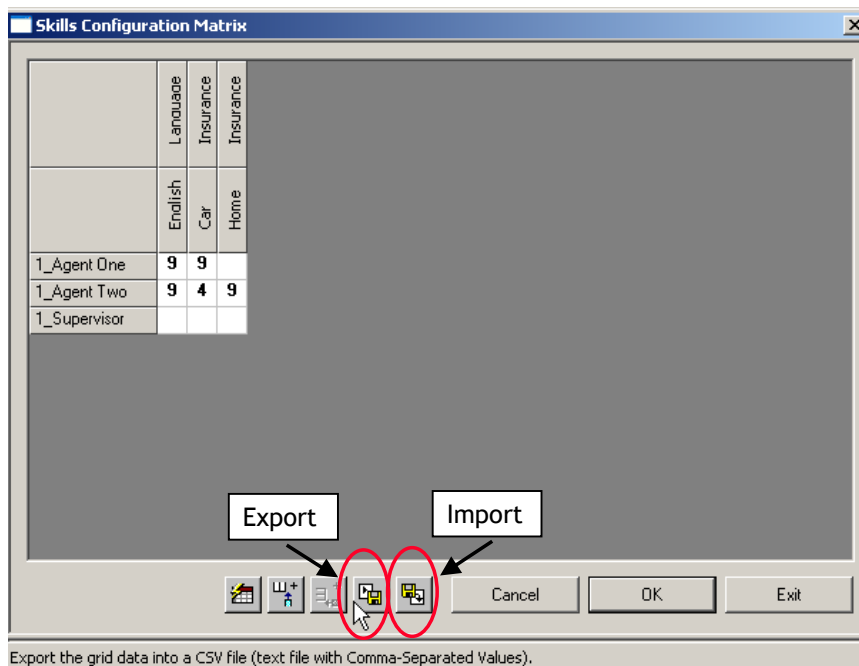
■ Skills configuration (Next)

- Add one agent / supervisor (for visualization)



■ Skills configuration (Next)

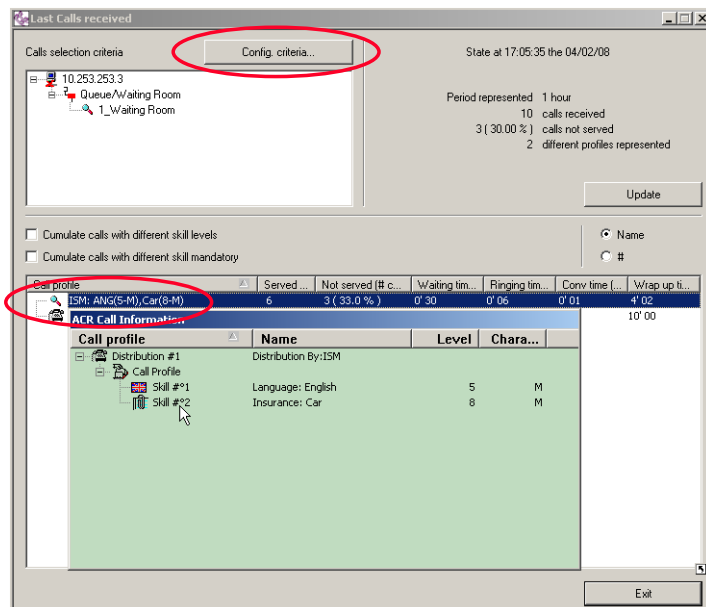
- Export / import agent skills (assigned skills, skill levels..)



■ Statistics

● Statistics/ Last received calls

- Pilots, Filters, Groups, Queues, Agents, Hyper objects, Teams



● Excel templates

- Filter
- Filters summary
- Agent per Filter

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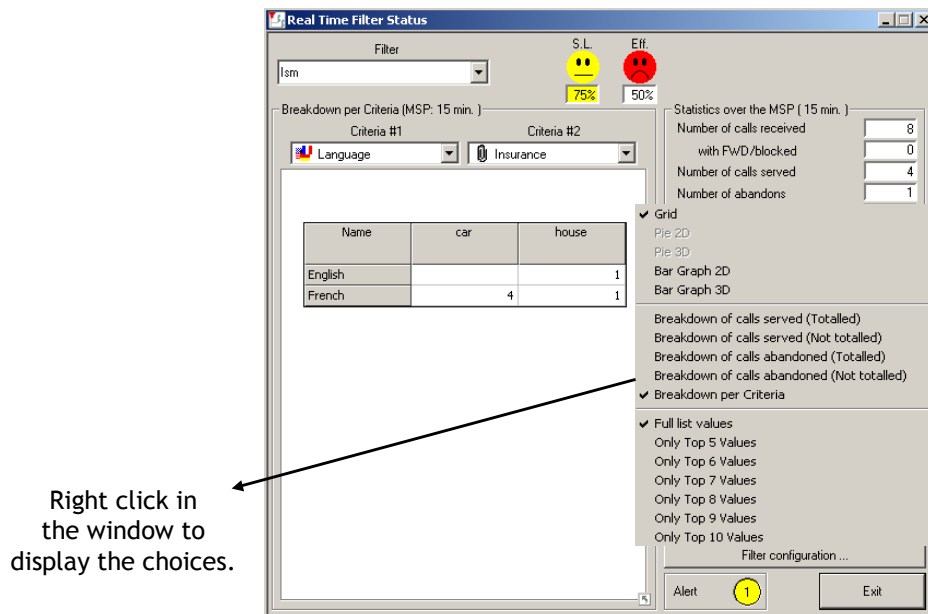
14

The information displayed can not be modified

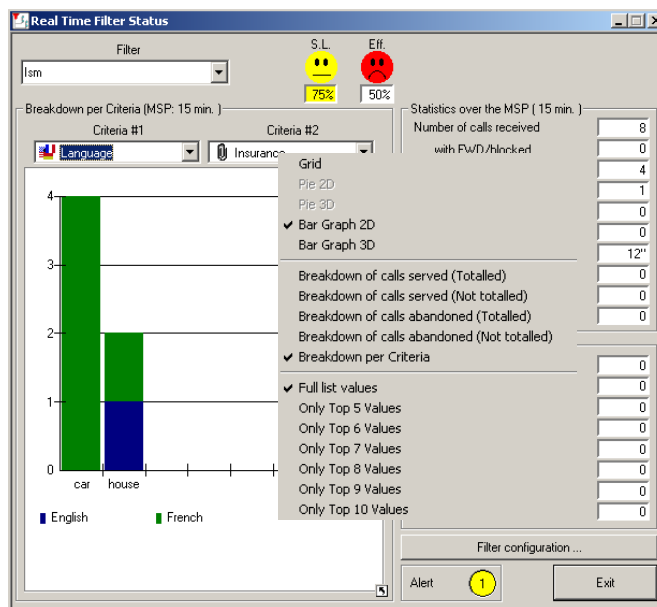
Information displayed

- Nb calls treated, calls not treated
- Average waiting, ringing, conversation, wrap up time...

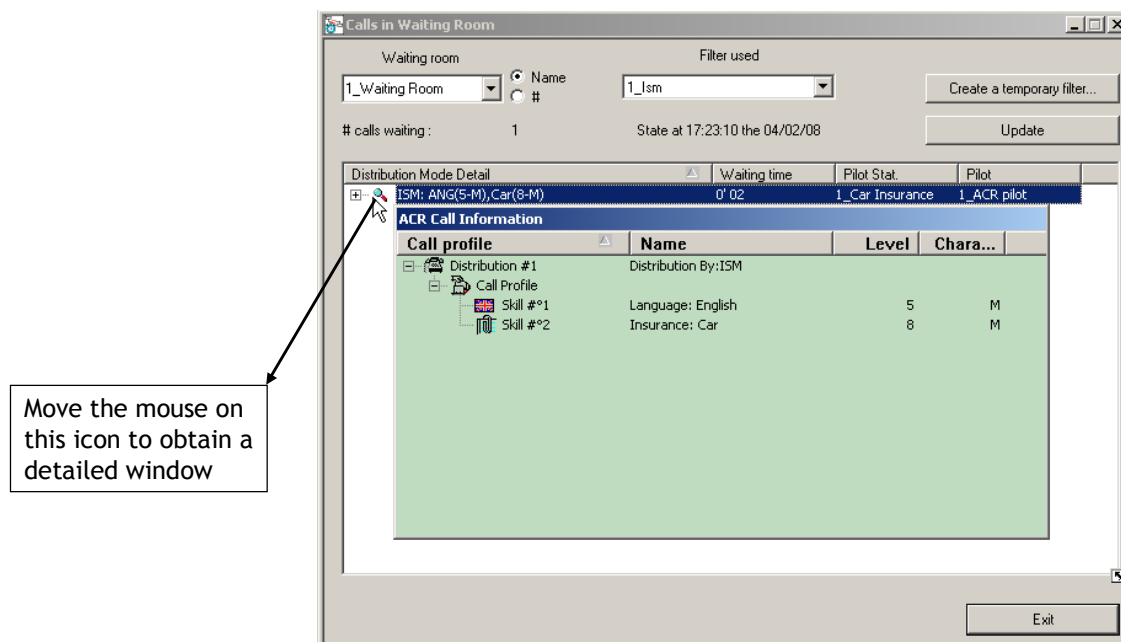
- Real time information
 - Real time/ Filter (choose ISM filter)
 - Representation in tabular form



- Real time information
 - Real time/ Filter
 - Graphic representation

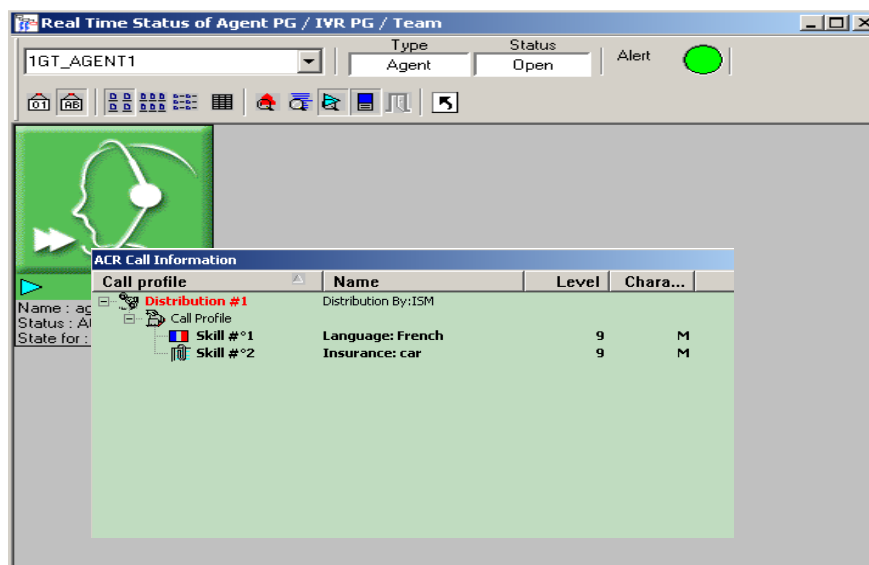


- Real Time information (next)
 - Real time/ Queue and Waiting Room/ Calls in WR



Possibility to create a temporary filter but it will be lost after closing the window.

- Real Time information (Next)
 - Real time/ Processing Group/ PG Agents/IVR/Team
 - ACR icon
 - Agent in conversation



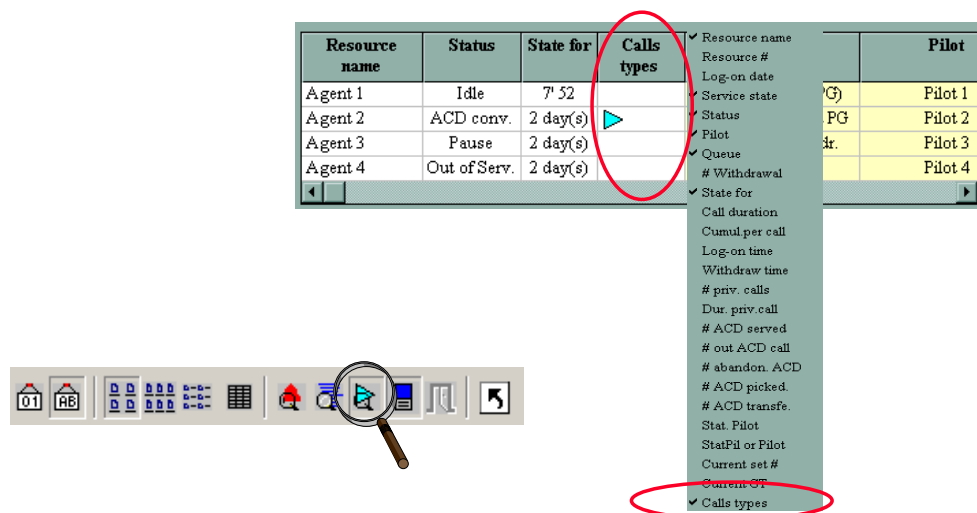
■ Real Time information(Next)

● Real time/ Processing Group/ PG Agents/IVR/Team

□ To set the ACR icon



○ Real time PG/ Team



Resource name	Status	State for	Calls types
Agent 1	Idle	7' 52	
Agent 2	ACD conv.	2 day(s)	
Agent 3	Pause	2 day(s)	
Agent 4	Out of Serv.	2 day(s)	

Resource name	Pilot
G)	Pilot 1
PG	Pilot 2
dr.	Pilot 3
	Pilot 4

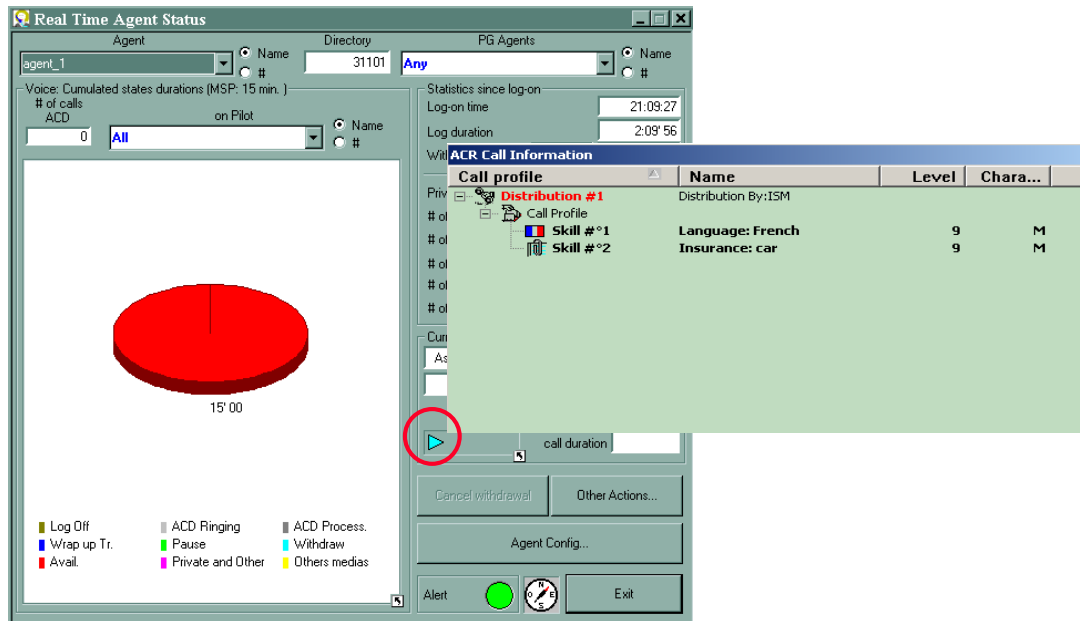
Fields list (checked items are marked with a checkmark):

- Resource name
- Resource #
- Log-on date
- Service state
- Status
- Pilot
- Queue
- # Withdrawal
- State for
- Call duration
- Cumul. per call
- Log-on time
- Withdraw time
- # priv. calls
- Dur. priv. call
- # ACD served
- # out ACD call
- # abandon. ACD
- # ACD picked.
- # ACD transfe.
- Stat. Pilot
- StatPil or Pilot
- Current set #
- Current CT
- Calls types**

■ Real Time information (Next)

● Real time/ Agent

- ACR icon is automatically displayed (for an ACR call)

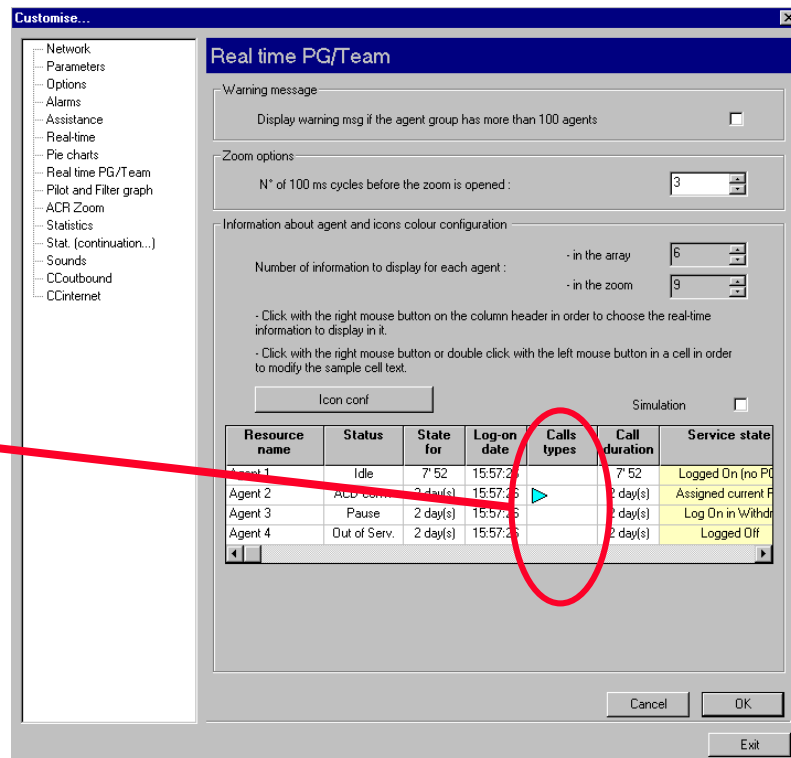


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To visualize the ISM zoom it is necessary to modify the following parameters:

Select Call Types



The screenshot shows the 'Customise...' dialog box for 'Real time PG/Team'. It has several sections: 'Warning message', 'Zoom options', 'Information about agent and icons colour configuration', and 'Icon conf'. The 'Zoom options' section has a field for 'N° of 100 ms cycles before the zoom is opened' set to 3. The 'Information about agent and icons colour configuration' section has fields for 'Number of information to display for each agent' (6 in the array, 9 in the zoom). The 'Icon conf' section has a table with columns: Resource name, Status, State for, Log-on date, Call types, Call duration, and Service state. A red circle highlights the 'Call types' column, and a red arrow points from the text 'Select Call Types' to this column.

Resource name	Status	State for	Log-on date	Call types	Call duration	Service state
Agent 1	Idle	7' 52	15:57:25		7' 52	Logged On (no P...
Agent 2	ACD down	2 day(s)	15:57:25		2 day(s)	Assigned current F...
Agent 3	Pause	2 day(s)	15:57:25		2 day(s)	Log On in Withd...
Agent 4	Out of Serv.	2 day(s)	15:57:25		2 day(s)	Logged Off

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Individual Skill Mapping rule (ISM)

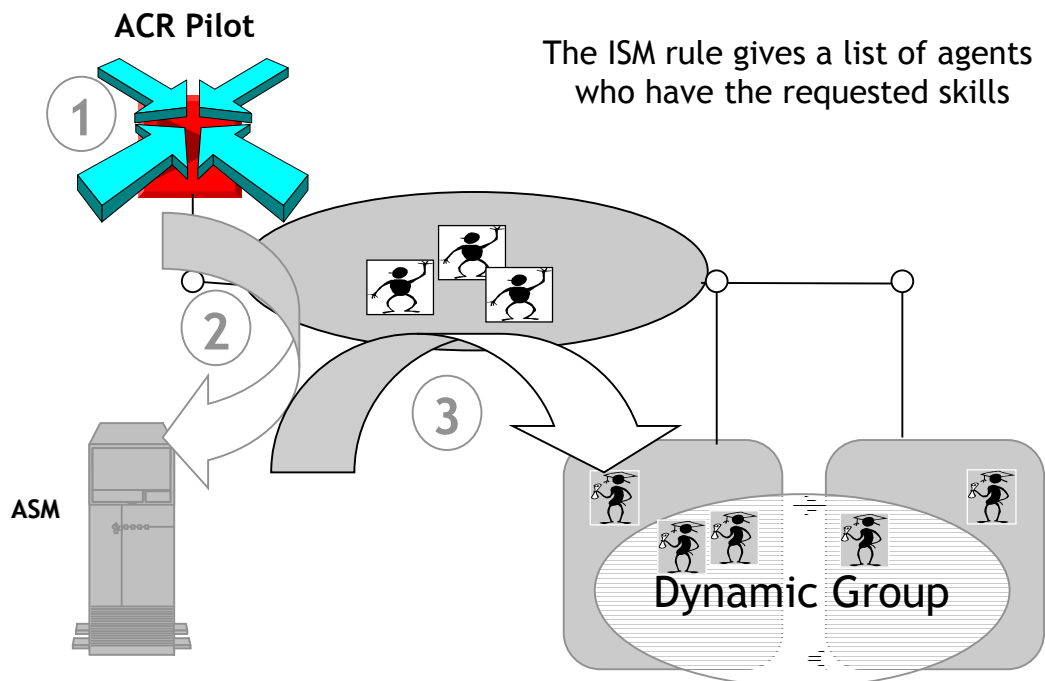


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1

OBJECTIVES

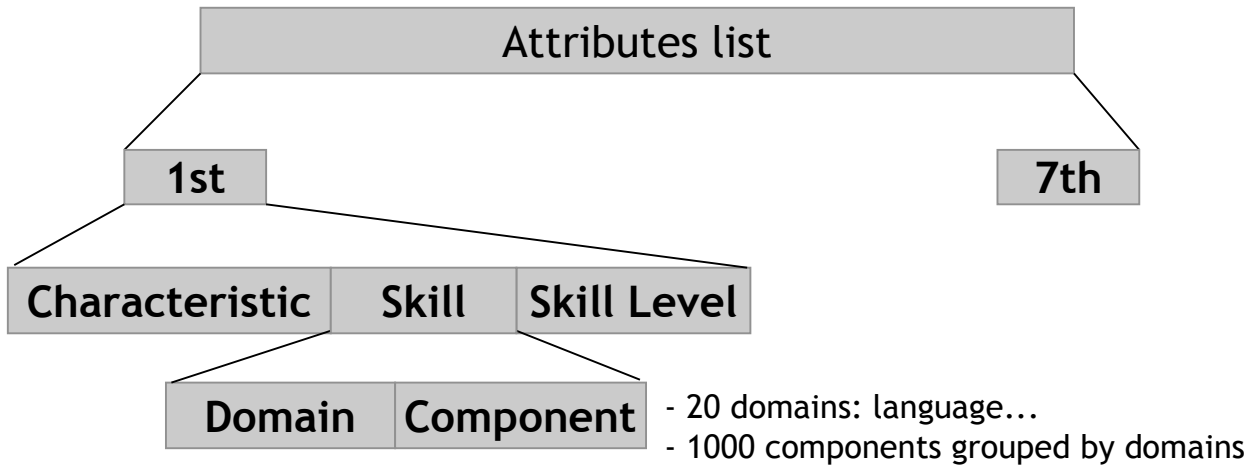
- ◆ To understand the aim of the ISM rule
- ◆ To be able to calculate and order an agent list
- ◆ To understand what is a call profile and an agent profile



- 1 Call characterization and association of call profile, distribution of the call through a pilot
- 2 Making up a list of agents suitable to process the call according to the rule
- 3 the dynamic group is created for this call

■ Call profile

- A call profile is made up of attributes list
 - 7 attributes maximum per call profile



Up to 1000 call profiles

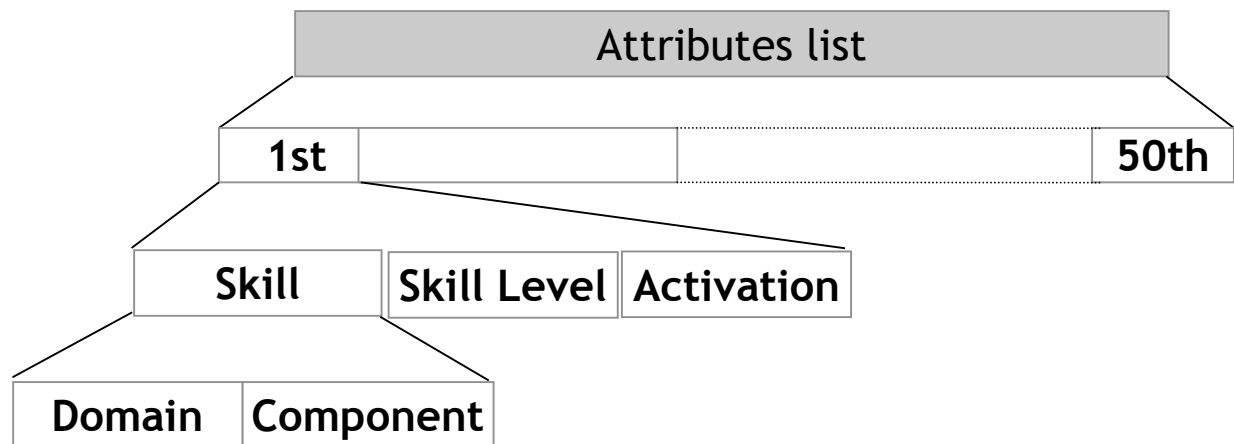
Characteristic: Mandatory or Optional

Example of skill: Domain: Insurance
 Component: car

Skill level: 1 (low) to 9 (high)

■ Agent profile

- The list of agent's skills is stored in the Alcatel OmniPCX MAO database
- Each skill has a level between 1 (low) and 9 (high)



The agent profile is associated by management to each agent

■ Each attribute has got:

- A characteristic: for agent selection
- A domain: family of skills
- A component: a skill in the domain
- A skill level: requested level of the agent or the caller profile

Characteristic	Mandatory or optional
Domain	Name, Weight (1 to 20)
Component	Skill(n) in the domain
Skill Level	Level 1 (low) to 9 (high)

If the call characteristic is set to mandatory, the agent chosen must have this skill.

Weight of the domain 1 (high) to 20 (low) is used in the algorithm to create the agent list

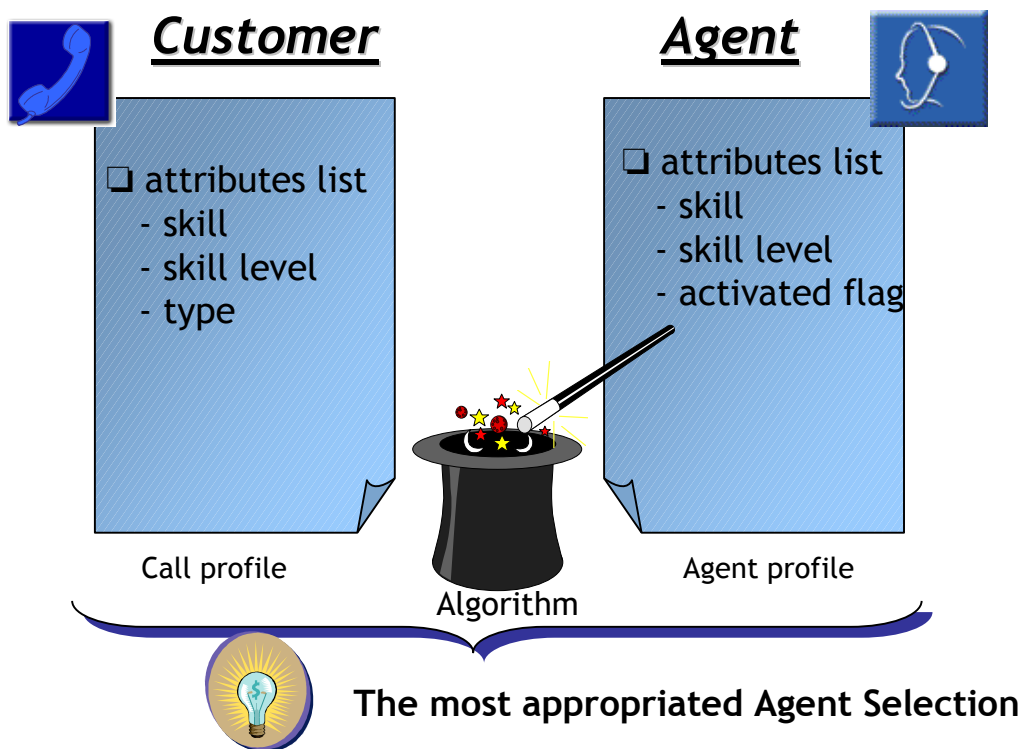
- One DOMAIN is made up of
 - One NUMBER: between 0 and 19
 - One NAME: Language for example
 - One weight: between 1 and 20
 - Determines the weight of the domain compared with the others

*The domains 0 et 1 are created by default (language and media)
Maximum of 20 domains*

- One skill in a domain is made up of:
 - One NUMBER: between 0 and 999
 - One NAME: English, Spanish, French ..

*Skills from 0 to 99 are created by default (predefined languages and media)
Maximum of 1000 skills*

Example: domain 2: insurance contains (skill 100 car and 101 home)



The most appropriate agent is determined according to the result of the comparison between the call profile and the agent profile

The call profile could be defined directly (in a statistics pilot, in a IVR, in the script) or according to a criteria (calling number, call tag or agent directory number for direct calls)

■ ISM Algorithm

- The agent must have all the mandatory attributes to process the call
- The agent are classified according to the result of the ISM algorithm
- A Reselection timeout is managed from ASM to find agent from sub-list N to sub-list N-1, N-2, ... N-N

The agent must have all attributes except for languages where it is only necessary to have 1 languages attribute

Ex: Call profile: English, French, Car insurance

Agent selected: Ag1 (English, car insurance), Ag2 (French, car insurance) and Ag3 (English, French and car insurance)

The validation of the time out could be set in the script but it is not mandatory (RESELECTION_TIMEOUT)

Caution: if the list returned by the ASM is empty, automatically the script is executed again until finding a list containing agent(s). If the second time the agent list is empty, the script is executed a third time and so on, maximum 20 requests.

■ ISM Algorithm

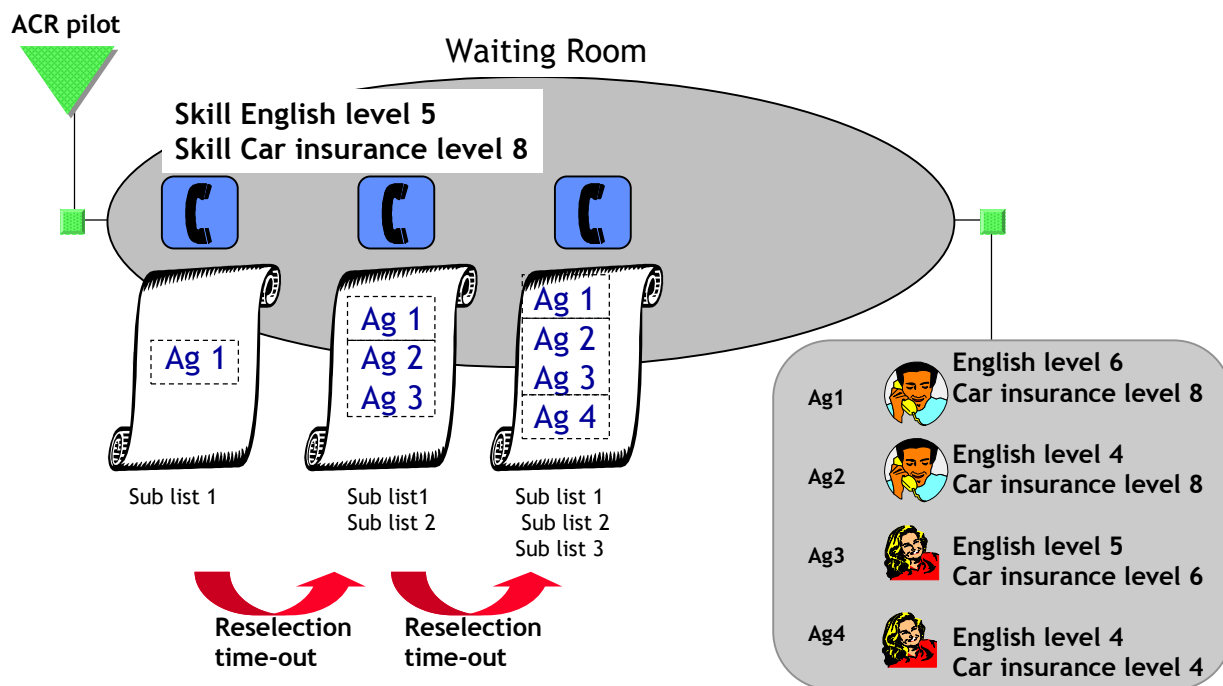
- Calculation of « N » mandatory attributes of the call
 - 1st sub-list:
 - « N » call attributes: with skill level of agent \geq skill level of the call
- After the timeout
 - 2nd sub-list:
 - « N-1 » call attributes: with skill level of agent \geq skill level of the call
 - « 1 » call attributes: with skill level of agent $<$ skill level of the call
- After the timeout
 - 3rd sub-list:
 - « N-2 » call attributes: with skill level of agent \geq skill level of the call
 - « 2 » call attributes: with skill level of agent $<$ skill level of the call
- After the timeout
 - N sub-list:
 - « N » call attributes: with skill level of agent $<$ skill level of the call

In the list the system adds the 1st sub-list and the 2nd sub-list and ...the N sub-list.

The resources selection is made on the list and not on the sub-list.

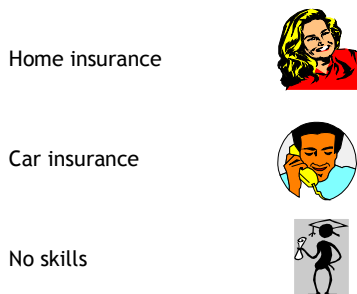
In the list return by the ASM there are all agents with the good skills even if they are logged out, withdrawn and the skills not validated.

■ Example ISM Algorithm



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■ Mandatory Cost for an agent:

- $C_{man} = \sum ((|Lag(s) - L_{call}(s)|) * W(s))$

- s: mandatory skills in the attributes list
- Lag: skill level of the agent profile
- Lcall: skill level of the call profile
- W: weight of the domain

■ The lowest C_{man} determines the selected agent

- It corresponds to the agent whose skills are closest to requested call profile
- When the C_{man} are equal, the algorithm selects the agent with the lowest C_{opt}

■ Optional Cost for an agent:

- $C_{opt} = \sum ((|L_{agent}(s) - L_{call}(s)|) * W(s))$

- s: optional skills in the attributes list

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C_{man} : mandatory cost

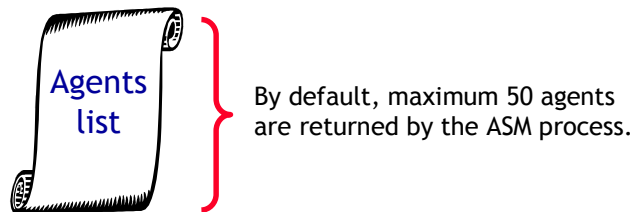
C_{opt} : optional cost

If an agent has not the optional skill requested for the algorithm the value will be 9.

$$C_{opt} = \sum ((|L_{agent}(s) - L_{call}(s)|) * W(s)) = 9 * W(s)$$

If the cost is the same for several agents, the list is sorted according to the maximum idle time since the logon (statistics information)

- The size of the agent list is defined by the parameter "Number of ACR agent buffers"
- Under Application / CCD/ CCD/RSI system parameters
 - Number of ACR agent buffers = 50

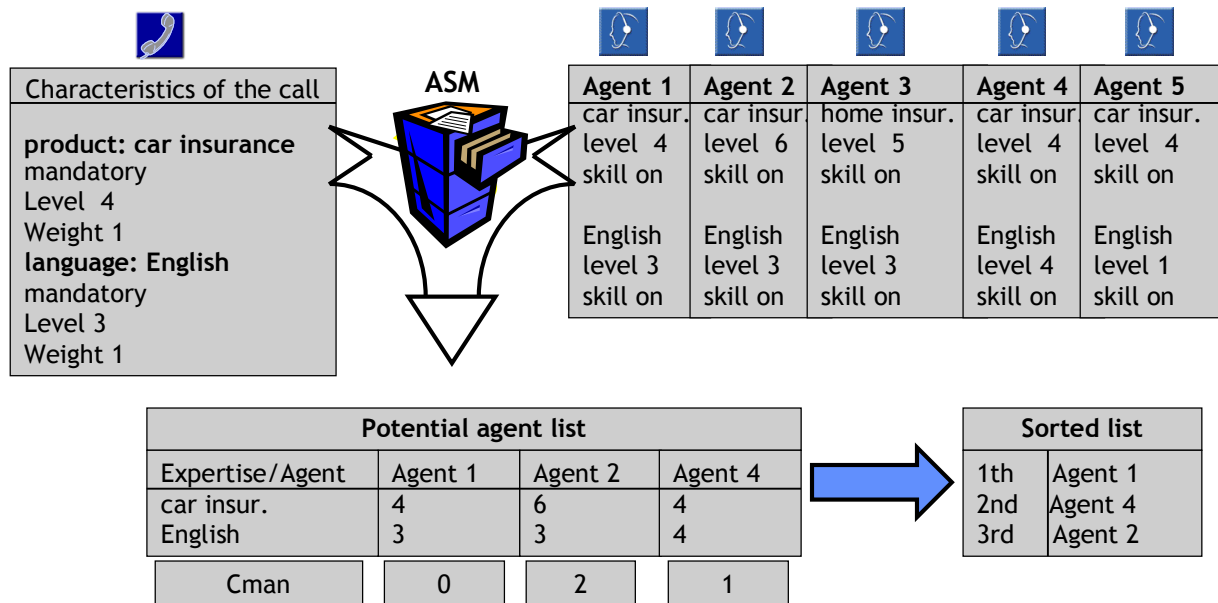


- The value can be managed between 20 and 280 maxi.
- In case of ACR in network, you will have a good reason to increase this value (to retrieve local and remote agents).

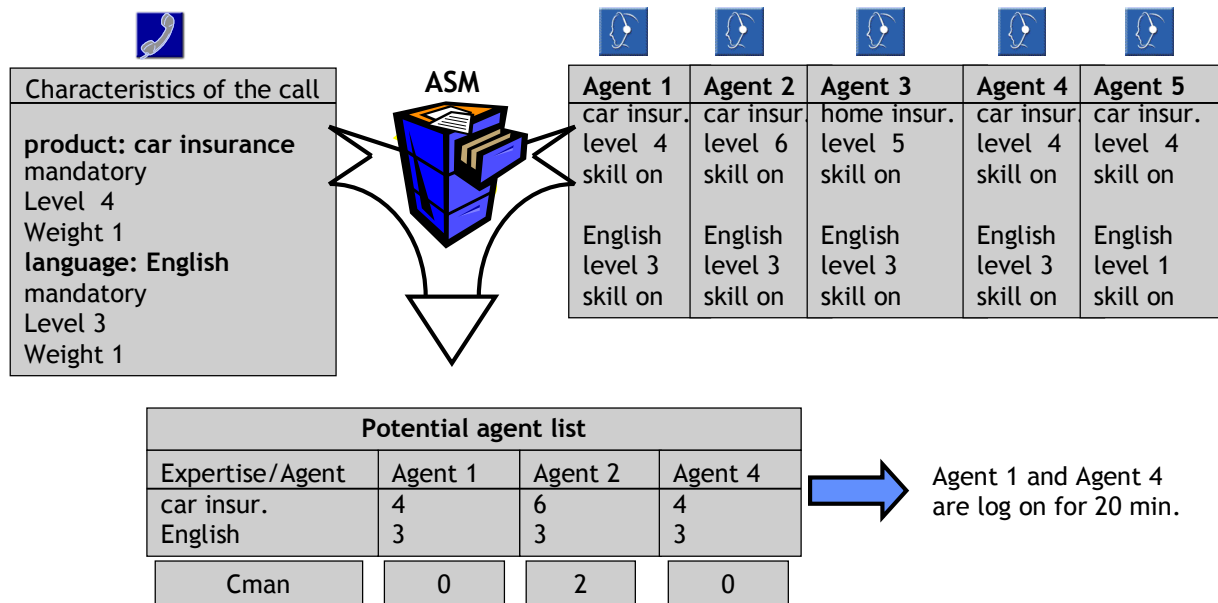
For an Internal ASM server (alb process), the agent list size is maximum 200.

For an external ASM server (ASM service on PC), the agent list size is maximum 280.

■ Example 1: different ISM costs



■ Example 2: Equal ISM costs for 2 agents (ISM rule)



The script applied uses only an ISM rule. In case of agents will have identical ISM costs, ASM server will sort the agents according to statistics calculated since the log on date of these agents.

Script activated on the ACR pilot:

```
START
  APPLY RULE_ISM CHARACTERISTICS_LIST
  RESELECTION_TIMEOUT [%10]
END
```


■ To verify the distribution right functioning

- > adm_acd IP@ of ASM server -salb
 - 21 agent number

21 agent1 directory number

Statistics	
Login duration:	1800
Nb ACD call in:	3
ACD call in duration:	100
Nb ACD call out:	0
ACD call out duration:	0
Nb private call:	0
Private Call duration:	0
Nb private Wrap-Up call:	0
Private Wrap-Up call duration:	0
Withdraw duration:	0
Nb Refused:	0
Nb e-mail call:	0
Email call duration:	0

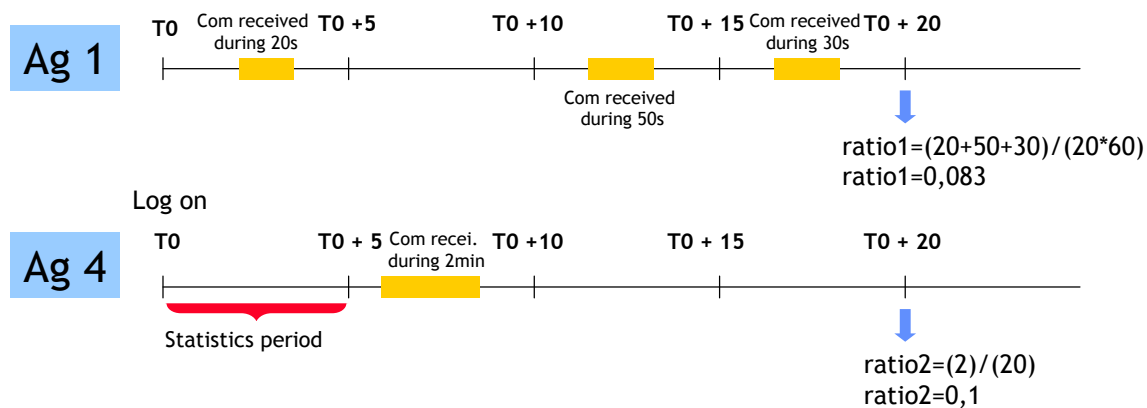
The command "adm_acd -salb" is correct if it's an internal ASM server. The PBX uses the localhost name to connect the ASM server.

For the agent 2:

21 agent2 directory number

Statistics	
Login duration:	1800
Nb ACD call in:	1
ACD call in duration:	120
Nb ACD call out:	0
ACD call out duration:	0
Nb private call:	0
Private Call duration:	0
Nb private Wrap-Up call:	0
Private Wrap-Up call duration:	0
Withdraw duration:	0
Nb Refused:	0
Nb e-mail call:	0
Email call duration:	0

- In case of equal cost, agents are sorted increasingly according to their ratio



- ratio1 < ratio2 so agent1 will be sorted before agent4

List sorted	
1rst	Agent 1
2nd	Agent 4
3rd	Agent 2

} Same order during the statistic period (5 min by default)

The 2 agents make their log on on the same time to have approximately the same log on time.
You have the possibility to check the statistic period value using the adm_acd menu:

```

Agent Selector Module
-----
Release : 2.5.3
Mode : MAIN
Not duplicated

Configuration file : /DHS3data/afe/.inialb
[Alb Parameters]
StatPeriod 5
DualTimeOut 200 ←
NbMaxAgent 200

[Site Description]
Site_1 LOCAL_DHS3 localhost default
  
```

The statistic period can take a value between 1 and 15. You can change the duration of this period.

2 cases:

- alb process
- external ASM

alb process:

Write in the file .inialb

```

cd /usr3/afe
vi .inialb
[Alb Parameters]
StatPeriod 1
  
```

Restart the alb process via MAIN_AFE

```
dhs3_init -R MAIN_AFE
```

External ASM

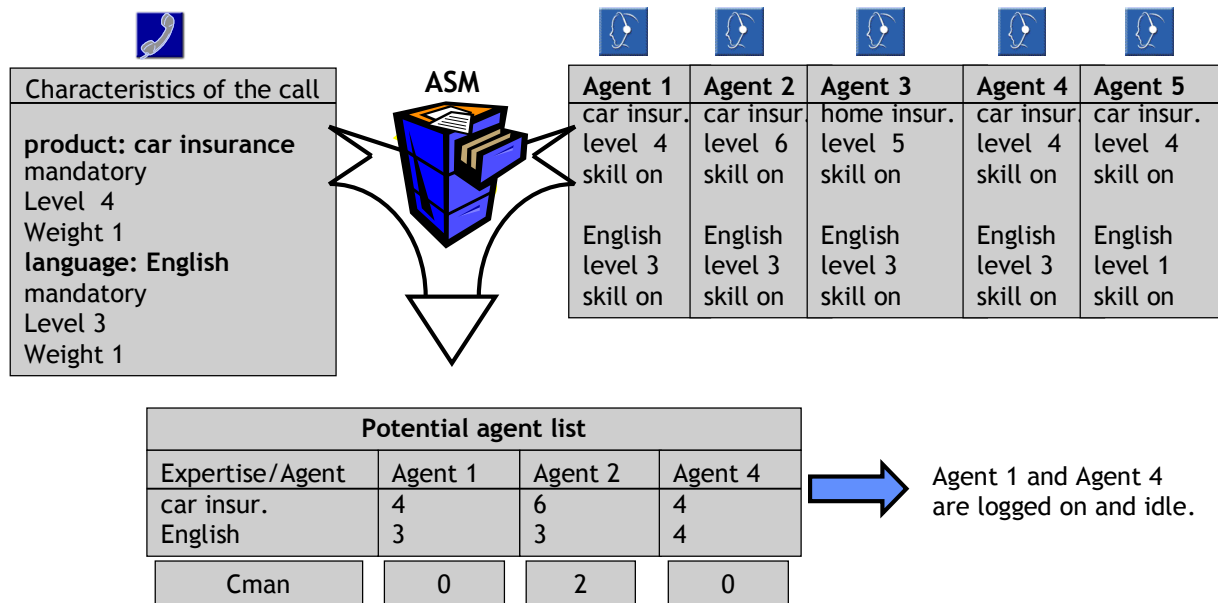
Add a new value (string type) in the Registry

```

HKEY_LOCAL_MACHINE\SOFTWARE\Alcatel\Agent Selector Module\ASMServer Options\Alb Parameters
StatPeriod - Value data 1
  
```

Restart the external ASM service

■ Example 3: Equal ISM costs for 2 agents (ISM rule + IDLE_TIME rule)



The script applied uses an ISM rule following by an IDLE_TIME rule. In case of agents have the same ISM cost, the ASM server will continue to sort the agents according to statistics calculated since the log on date.

To sort the agents according to the Longest Idle Time (LIT) like for the agent PG, you have to create a "patchIdle" file under the directory /usr2/afe.

Procedure to create this file:

- 1°) Create an empty file (named patchIdle) under the directory /usr2/afe


```
( )>cd /usr2/afe
( )>touch patchIdle
```
- 2°) The rights of this file must be:


```
rw-rw-r-- mtcl tel
```

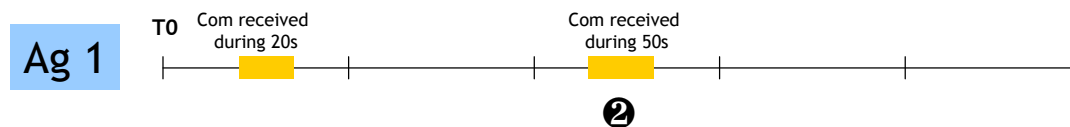
 To change the rights, you will use `chmod 664 patchIdle`

Script activated on the ACR pilot:

```
START
APPLY RULE_ISM CHARACTERISTICS_LIST, RULE_IDLE
RESELECTION_TIMEOUT [%10]
END
```

N.B.: if the script applies an ISM rule and an IDLE rule but the patchIdle file is not created then the functioning will be identical that the one using only ISM rule.

- In case of equal cost, agents are sorted according to their LIT



ACR call ①

List sorted	
1st	Agent 4
2nd	Agent 1
3rd	Agent 2

ACR call ②

List sorted	
1st	Agent 1
2nd	Agent 4
3rd	Agent 2

The 2 agents make their log on on the same time to have approximately the same log on time.

■ An option exists to change the agent sorting

- In the parameters.cfg file, the option is named:
 - Asm_wants_rt_agents 0 (default value)
- Restart the MAIN_AFE process after changing the value.
- asm_wants_rt_agents = 0
 - All the agents are sorted according to the cost only independently of their status.
- asm_wants_rt_agents = 1
 - All the agents are sorted firstly according to their status (idle, busy, withdrawal or logged off) and inside of their different status the agents are sorted according to the cost.

HANDS-ON EXERCISES

OBJECTIVE

- To learn how to find the agents list

MANAGEMENT

1. Let consider a caller from Paris who wants to have some information concerning his car insurance contract.
 - In the distribution, there are 4 domains
 - **Domain 0: Languages (Weight 1)**
 - French
 - English
 - German
 - **Domain1: Product (Weight 4)**
 - Car insurance
 - Home insurance
 - Life insurance
 - Financial consultant
 - **Domain 2: Geographic market (Weight 2)**
 - Paris
 - The Country
 - UK
 - Germany
 - **Domain 3: Privilege (Weight 3)**
 - Client
 - VIP

- The **call profile** associated to the called statistic pilot is

Mandatory			Optional	
Product	Language	Geographic market	Product	Privilege
Car insurance	French	Paris	Life insurance	Client
level 4	Level 3	Level 1	Level 1	Level 1

- The **agents** have the following skills
 - **Agent1**
 - Languages: French (level9), English (level2)
 - Product: Car insurance (level4), Home insurance (level4), Life insurance (level2)
 - Geographic market: Paris (level5), UK (level2)
 - Privilege: VIP (level 5)
 - **Agent2**
 - Languages: French (level1), English (level9), German(level4)
 - Product: Life insurance (level6), Financial consultant (level8)
 - Geographic market: UK (level9), Germany (level4)
 - Privilege: Client(level5), VIP (level 5)
 - **Agent3**
 - Languages: German(level9)
 - Product: Car insurance (level9), Home insurance (level9),
 - Geographic market: Germany (level9)
 - Privilege: Client(level9), VIP (level9)
 - **Agent4**
 - Languages: French (level5), English (level3), German(level3)
 - Product: Car insurance (level5), Home insurance (level5), Life insurance (level1), Financial consultant (level1)
 - Geographic market: Paris (level5), the country (level5), UK (level2), Germany (level2)
 - Privilege: Client(level2), VIP (level2)
 - **Agent5**
 - Languages: French (level3), English (level3), German(level9)
 - Product: Car insurance (level2), Home insurance (level2), Life insurance (level6), Financial consultant (level6)
 - Geographic market: Paris (level4), the country (level2), UK (level3), Germany (level9)
 - Privilege: Client(level4)

- Find the list n, list n-1 ... list n-n of agents returned by the ASM

HANDS-ON EXERCISES SOLUTIONS

OBJECTIVE

- To learn how to find the agents list

MANAGEMENT

1. Let consider a caller from Paris who wants to have some information on his car insurance contract.
 - In the distribution, there are 4 domains
 - **Domain 0:** Languages (Weight 1)
 - French
 - English
 - German
 - **Domain 1:** Product (Weight 4)
 - Car insurance
 - Home insurance
 - Life insurance
 - Financial consultant
 - **Domain 2:** Geographic market (Weight 2)
 - Paris
 - The Country
 - UK
 - Germany
 - **Domain 3:** Privilege (Weight 3)
 - Client
 - VIP

- The **profile** on the called pilot is

Mandatory			Optional	
Product	Language	Geographic market	Product	Privilege
Car insurance	French	Paris	Life insurance	Client
level 4	Level 3	Level 1	Level 1	Level 1

- The **agents** have the following skills

- **Agent1**
 - Languages: French (level9), English (level2)
 - Product: Car insurance (level4), Home insurance (level4), Life insurance (level2)
 - Geographic market: Paris (level5), UK (level2)
 - Privilege: VIP (level 5)
- **Agent2**
 - Languages: French (level1), English (level9), German(level4)
 - Product: Life insurance (level6), Financial consultant (level8)
 - Geographic market: UK (level9), Germany (level4)
 - Privilege: Client(level5), VIP (level 5)
- **Agent3**
 - Languages: German(level9)
 - Product: Car insurance (level9), Home insurance (level9),
 - Geographic market: Germany (level9)
 - Privilege: Client(level9), VIP (level9)
- **Agent4**
 - Languages: French (level5), English (level3), German(level3)
 - Product: Car insurance (level5), Home insurance (level5), Life insurance (level1), Financial consultant (level1)
 - Geographic market: Paris (level5), the country (level5), UK (level2), Germany (level2)
 - Privilege: Client(level2), VIP (level2)
- **Agent5**
 - Languages: French (level3), English (level3), German(level9)
 - Product: Car insurance (level2), Home insurance (level2), Life insurance (level6), Financial consultant (level6)
 - Geographic market: Paris (level4), the country (level2), UK (level3), Germany (level9)
 - Privilege: Client(level4)

2. Find the list n, list n-1 ... list n-n of agents returned by the ASM

Only Agent1, Agent 4 and Agent 5 have the mandatory cost

Ag2 is not in a list because he has not the car insurance skill and

Ag3 is not in a list because he has not the French skill

- Mandatory Cost calculation

$$\text{Ag1} = (\text{Fr})(9-3)*1 + (\text{Car})(4-4)*4 + (\text{Paris})(5-1)*2 = 14$$

$$\text{Ag4} = (\text{Fr})(5-3)*1 + (\text{Car})(5-4)*4 + (\text{Paris})(5-1)*2 = 14$$

$$\text{Ag5} = (\text{FR})(3-3)*1 + (\text{Car})(2-4)*4 + (\text{Paris})(4-1)*2 = 14$$

Agent5 has a lower level than the required car skill so he is not in the sub list1 but could be in sub list2 if it is used.

Because Agent1 and Agent4 have the same mandatory cost the system calculates the optional cost

- Optional cost calculation

$$\text{Ag1} = (\text{Life})(2-1)*4 + (\text{Client})(9)*3 = 31 \text{ (9 for client because Ag1 has no client skill)}$$

$$\text{Ag4} = (\text{Life})(1-1)*4 + (\text{Client})(2-1)*3 = 3$$

So the list return by ASM is the following list:

Sub list 1: Ag4, Ag1

Sub list 2: Ag5

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ACR management



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OBJECTIVE

- ◆ To know how to create and manage the ACR objects

■ ACR management

- The definition of the distribution parameters
 - waiting rooms, pilots, rules
- The definition of the skills
 - domain, component
- The definition of the call characterization
 - call profile
- The definition of the operators skills
 - agent profile

■ Waiting room management

● Applications/CCD/Queue

- ☐ Directory Number: 31320
- ☐ Name: WaitingRoom1
- ☐ Type + Waiting room
- ☐ Distribution direction 0: 31320
- ☐
- ☐ Distribution direction 29: -----
- ☐ Supervision Timer: 0
- ☐ Wait Queue Superv. Directory No.: -----
- ☐ Traffic Sampling Time + 5 mn
- ☐ Max Waiting Time: 3000
- ☐ Ringing Supervision Timer: 0
- ☐ Ringing Supervision Directory No.: -----

Queuing overflow

Dynamic group parameters
(ringing overflow)

A waiting room can be served by Agent processing group or IVR processing group.

■ 2 steps for the skills management

- Definition of the skill domains
- Definition of the skills (components)

■ Definition of the skill domains

- Applications/CCD/Skill/Skill Domain
 - Skill domain number: 2
 - Name: Insurance
 - Preference: 1

20 Domains max: By default 0 is language and 1 is media

Preference is an integer 1 to 20 (weight in the CCsupervision)

The waiting room is blocked if there is no agent with skills logged on in an agent PG served by this room.

■ Definition of the skills

● Applications/CCD/Skill/Skill parameters

- ☐ Skill nb: 100
- ☐ Skill domain number: 2
- ☐ Name: Car
- ☐ Abbreviated Name: Car

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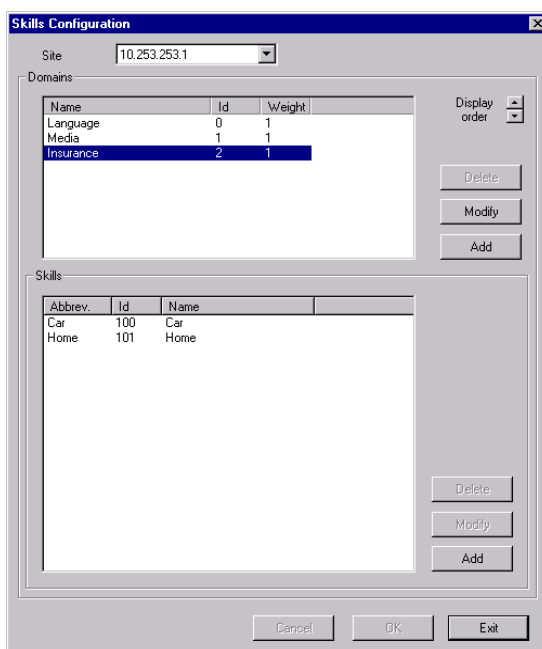
5

1000 skills maximum: 0 to 99 are defined and can not be deleted

The abbreviated name (4 characters maximum) is used for the display on the set

Domain and skills configuration by CcSupervision

Configurations/ Advanced Call Routing/ Skill



The Skills Configuration dialog box is shown. It has a title bar 'Skills Configuration' and a close button. The 'Site' field is set to '10.253.253.1'. The 'Domains' section contains a table with columns 'Name', 'Id', and 'Weight'. The table has three rows: 'Language' (Id: 0, Weight: 1), 'Media' (Id: 1, Weight: 1), and 'Insurance' (Id: 2, Weight: 1). To the right of the table are buttons for 'Delete', 'Modify', and 'Add', and a 'Display order' dropdown. The 'Skills' section contains a table with columns 'Abbrev.', 'Id', and 'Name'. The table has two rows: 'Car' (Id: 100, Name: Car) and 'Home' (Id: 101, Name: Home). To the right of the table are buttons for 'Delete', 'Modify', and 'Add'. At the bottom of the dialog are 'Cancel', 'OK', and 'Exit' buttons.

Name	Id	Weight
Language	0	1
Media	1	1
Insurance	2	1

Abbrev.	Id	Name
Car	100	Car
Home	101	Home

■ Definition of the call profiles

● Applications/CCD/Skill/Call profile

- Call profile number: 0
- Name
- Skill list
 - Skill number: 100
 - Expertise level: 1
 - Mandatory: True
 - Position: 1

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6

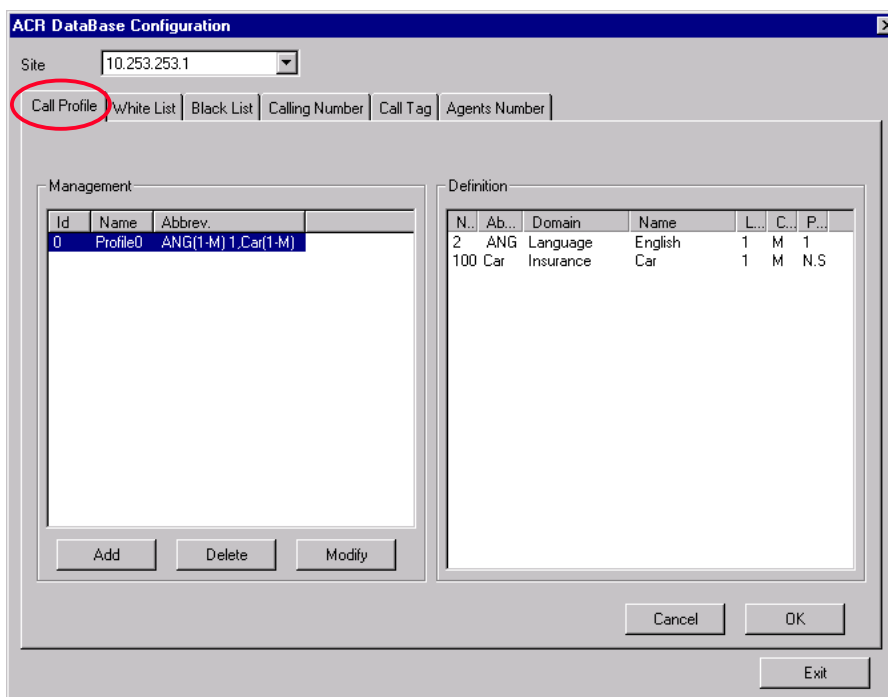
1000 call profiles maximum

Expertise level is 1 to 9

Position (preference in the CCsupervision) is 1(high) to 7 (low); only used for the language domain

Profile configuration by CCsupervision

Configurations/ Advanced Call Routing/ ACR data



ACR DataBase Configuration

Site: 10.253.253.1

Call Profile White List Black List Calling Number Call Tag Agents Number

Management

Id	Name	Abbrev.
0	Profile0	ANG(1-M) 1.Car(1-M)

Add Delete Modify

Definition

N..	Ab..	Domain	Name	L..	C..	P..
2	ANG	Language	English	1	M	1
100	Car	Insurance	Car	1	M	N.S

Cancel OK Exit

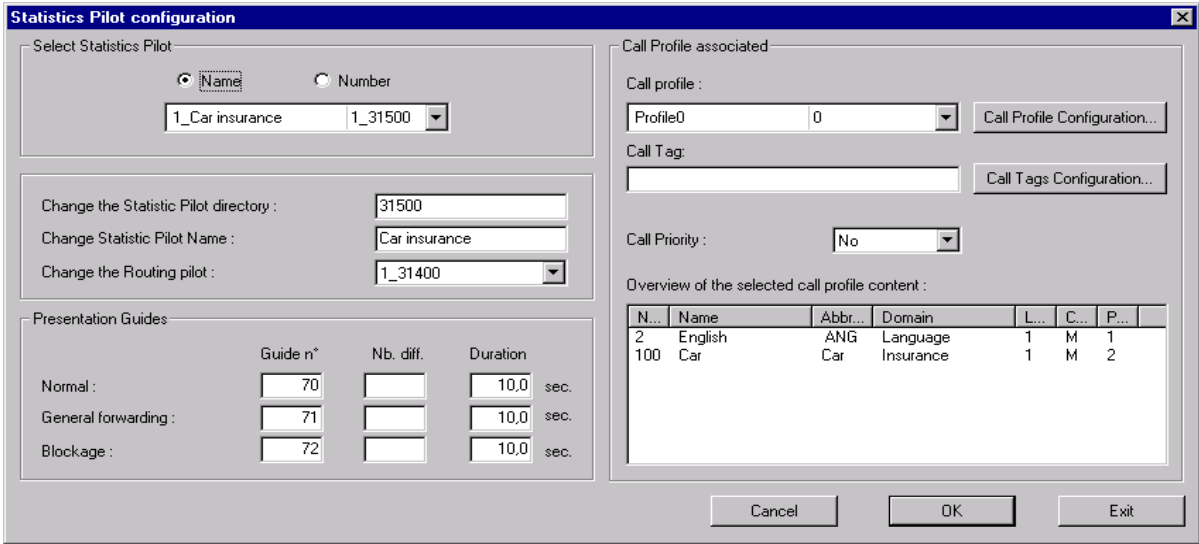
■ Definition of statistics pilot

- Applications/CCD/Statistics pilot
 - Pilot Stat. Directory Number: 31650
 - Directory Name: Car insurance
 - ...
 - Routing pilot: 31600
 - Call tag:
 - Call priority: -1
 - Call Profile: 0

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Statistics pilot configuration by CCsupervision
Configurations/ Statistics pilot



The dialog box is titled "Statistics Pilot configuration". It contains several sections for configuring the statistics pilot.

Select Statistics Pilot: This section has two radio buttons: "Name" (selected) and "Number". Below them are two dropdown menus. The first dropdown shows "1_Car insurance" and the second shows "1_31500".

Change the Statistic Pilot directory: A text field containing "31500".

Change Statistic Pilot Name: A text field containing "Car insurance".

Change the Routing pilot: A dropdown menu showing "1_31400".

Presentation Guides: This section contains a table with columns: Guide n°, Nb. diff., and Duration. There are three rows: Normal, General forwarding, and Blockage. Each row has input fields for the first three columns and a unit "sec." in the fourth.

	Guide n°	Nb. diff.	Duration	
Normal :	70		10,0	sec.
General forwarding :	71		10,0	sec.
Blockage :	72		10,0	sec.

Call Profile associated: This section contains a "Call profile:" dropdown showing "Profile0" and a "0" value. There is a "Call Profile Configuration..." button. Below it is a "Call Tag:" label and an empty text field, with a "Call Tags Configuration..." button. Further down is a "Call Priority:" dropdown showing "No".

Overview of the selected call profile content: This section contains a table with columns: N..., Name, Abbr..., Domain, L..., C..., and P....

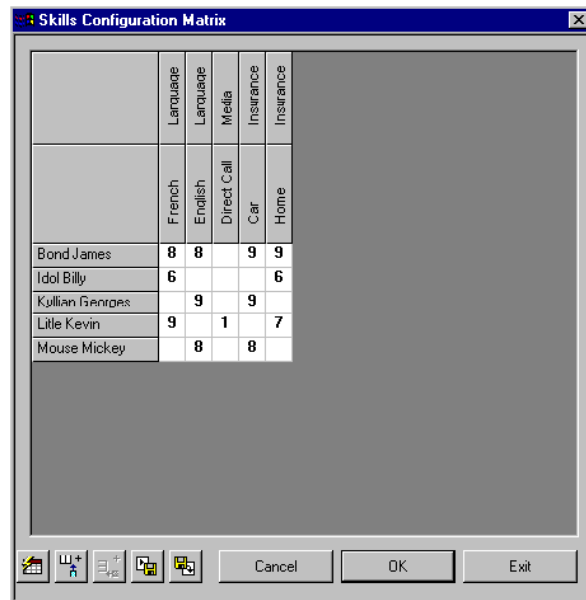
N...	Name	Abbr...	Domain	L...	C...	P...
2	English	ANG	Language	1	M	1
100	Car	Car	Insurance	1	M	2

At the bottom of the dialog are three buttons: "Cancel", "OK", and "Exit".

■ Definition of the agent skills

● Applications/CCD/Operators data management

- ☐ Directory number: 31500
- ☐ Operator type + Agent
- ☐
- ☐ Skill set
- ☐ Skill Nb.: 2
- ☐ Skill Level: 1
- ☐ Skill activation + True



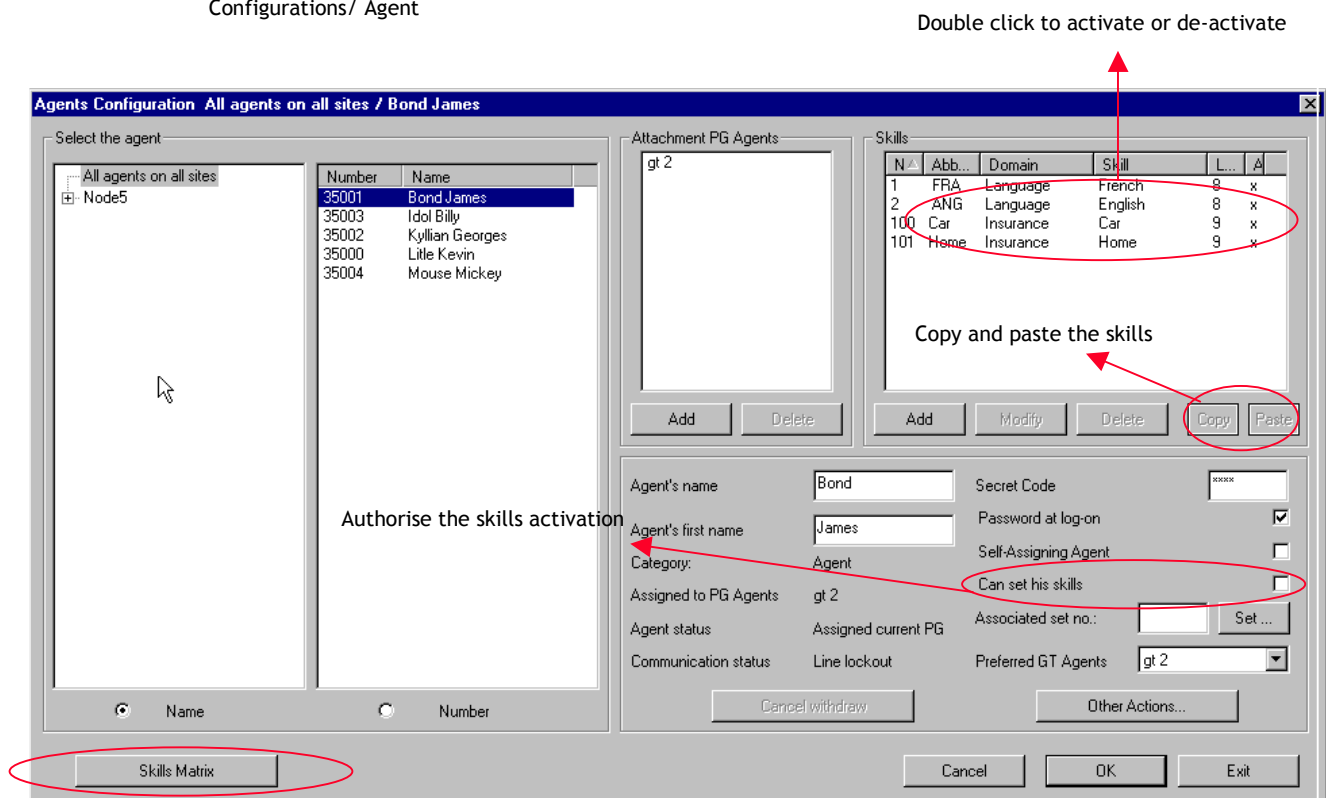
The Skills Configuration Matrix dialog box displays a table with agent names and their skill levels across various domains.

	Language	Language	Media	Insurance
	French	English	Direct Call	Home
Bond James	8	8	9	9
Idol Billy	6			6
Kyllian Georges	9		9	
Little Kevin	9	1		7
Mouse Mickey	8		8	

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Definition of the operator skills by CCsupervision
Configurations/ Agent



The Agents Configuration dialog box for agent Bond James shows the following details:

- Select the agent:** All agents on all sites / Bond James
- Attachment PG Agents:** gt 2
- Skills:**

N°	Abb...	Domain	Skill	L...	A
1	FRA	Language	French	8	x
2	ANG	Language	English	8	x
100	Car	Insurance	Car	9	x
101	Home	Insurance	Home	9	x
- Agent's name:** Bond
- Agent's first name:** James
- Category:** Agent
- Assigned to PG Agents:** gt 2
- Agent status:** Assigned current PG
- Communication status:** Line lockout
- Secret Code:** [Redacted]
- Password at log-on:** ☒
- Self-Assigning Agent:** ☐
- Can set his skills:** ☐ (Annotated: "Authorise the skills activation")
- Associated set no.:** [Redacted]
- Preferred GT Agents:** gt 2

Annotations in the image:

- "Double click to activate or de-activate" points to the 'Can set his skills' checkbox.
- "Copy and paste the skills" points to the 'Copy' and 'Paste' buttons in the Skills section.
- "Skills Matrix" button is circled at the bottom left.

■ Skill access from the agent set

● Applications/CCD/Operators data management

- Directory number: 31500
- Operator type + Agent
-
- Skill parameters copy: -----
- **Manage skills + True**

Give the rights to the agent to
activate / de-activate the skills from his set

● Agent screen

- Skills visualization
- Skills Activation/De-activation



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9

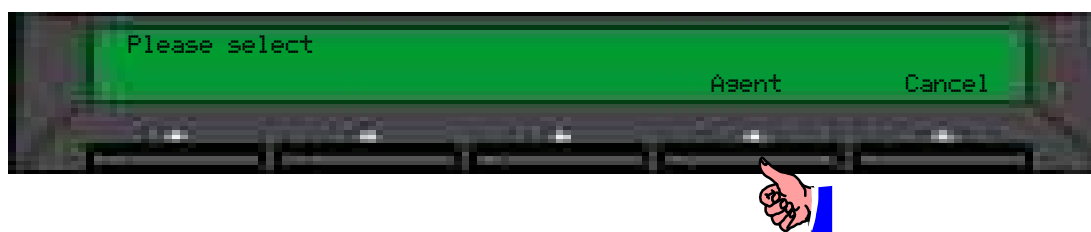
The agent can visualize, activate and de-activate his skills

The supervisor can visualize, activate and de-activate the skills of the agents if the supervisor has or has not some skills associated.

Supervisor display



Supervisor without skill



Supervisor with associated skills



■ Skill access from the agent set (next)



Skill number

Skill 1 in the list
2 skills for the agent

■ “agacd” command: agacd + Agent dir. number

Name :	31000	Lognum :	6
Directory number :	31000	Type :	AGENT
Eqt number :	5	AG number :	0
PG Choice :	[T]	Secret Code :	[F]
Prefer PG Dir nb :		Priv number :	
Affect PG Dir nb :	31200	Position :	1
Last Date Call :	123:20:45:600	Dir nb Sup Help :	
Arriv Call Pi :		Current time :	162:36:52:600
Static State :	NORMAL	Current Pilot :	
Withd type :	-1	Dynamic State :	FREE
Activ G. Pres :	[F]	Mess Pres Number :	-1
File Nb G. Pres :	0	Next pg :	-1
Mao action on going :	[F]	New cancel withdrawal :	[F]
Active Forwarding :	[F]		
Manage Skill :	[T]	CCE Client :	[F]
		CCW Client :	[F]
		Set of the skill set	
Skill Number		Skill level	
1		1	[T]
100		1	[T]
SkillOpeNumber =	2		
		No lang defined	
LangOpeNumber =	0		

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Parameters according to the agent ACR management:

agacd agent directory number	CCs
- Manage Skill [T] or [F]	(parameter "can set his skills")
- Skill Number Skill level Skill activated	("skill" area in the configuration window / agent)
- SkillOpeNumber 5	

The parameter "SkillOpeNumber" matches to the total skills associated to agents.

Eg:

agent1	agent2
1 FRA language	1 FRA language
100 car insurance	2 EN language
	101 house insurance

■ Command adm_acd

- option 2 +
 - ☐ 1 for pilots list
 - ☐ 4 for waiting queues list
 - ☐ 5 for statistics pilots
- option 3 +
 - ☐ 1 for agent, IVR PG list
 - ☐ 2 for other PG list
- option 4 +
 - ☐ 1 for agents list (agent + supervisor)
 - ☐ 2 for supervisors list (CCs account)
- option 5 +
 - ☐ 6 for skills and domains list
 - ☐ 7 for call profile list
 - ☐ 8 for authorized, unauthorized list
 - ☐ 9 for internal database

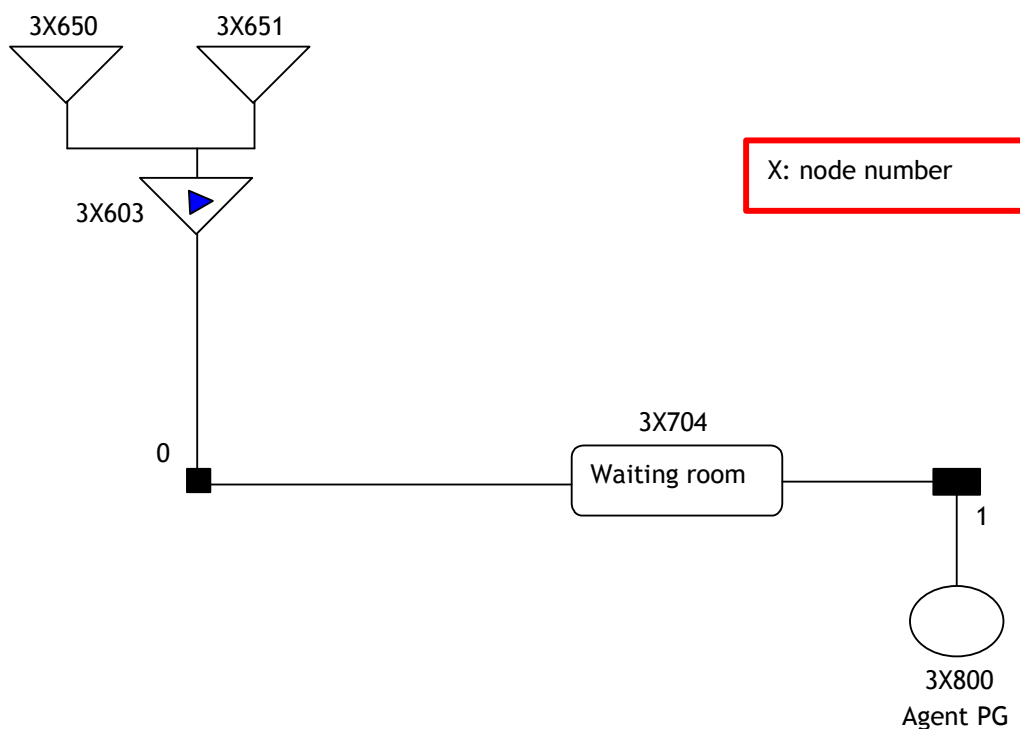
HANDS-ON EXERCISES

OBJECTIVE

- To learn how to manage ACR

MANAGEMENT

1. Add the ACR matrix to the existing CC matrix



You have to create 2 statistic pilots (3X650 & 3X651), 1 routing ACR pilot (3X603) and 1 waiting room (3X704)

We will use the same Agent PG (3X800) than previously

The following statistics pilots will be connected to the routing pilot 3X603:

Car insurance: 3X650

Home insurance: 3X651

2. Create a new domain
Domain name: Insurance
3. Create 2 new skills in the "Insurance" domain
Skill: Car
Skill: Home
4. Create 2 call profiles
 - Profile 1
 - **Language: English / level 5 / mandatory**
 - **Insurance: Car / level 8 / mandatory**
 -
 - Profile 2
 - **Language: English / level 5 / mandatory**
 - **Insurance: Home / level 8 / mandatory**
5. Assign the call profiles to the statistic pilots
Car insurance: 3X650 ➡ profile 1
Home insurance: 3X651 ➡ profile 2
6. Assign the skills to the agents
 - Agent_1(3X500)
 - **Language: English / level 9**
 - **Insurance: Car / level 9**
 - Agent_2 (3X501)
 - **Language: English / level 9**
 - **Insurance: Home / level 9**
7. Call the statistic pilot 3X650
What happens?

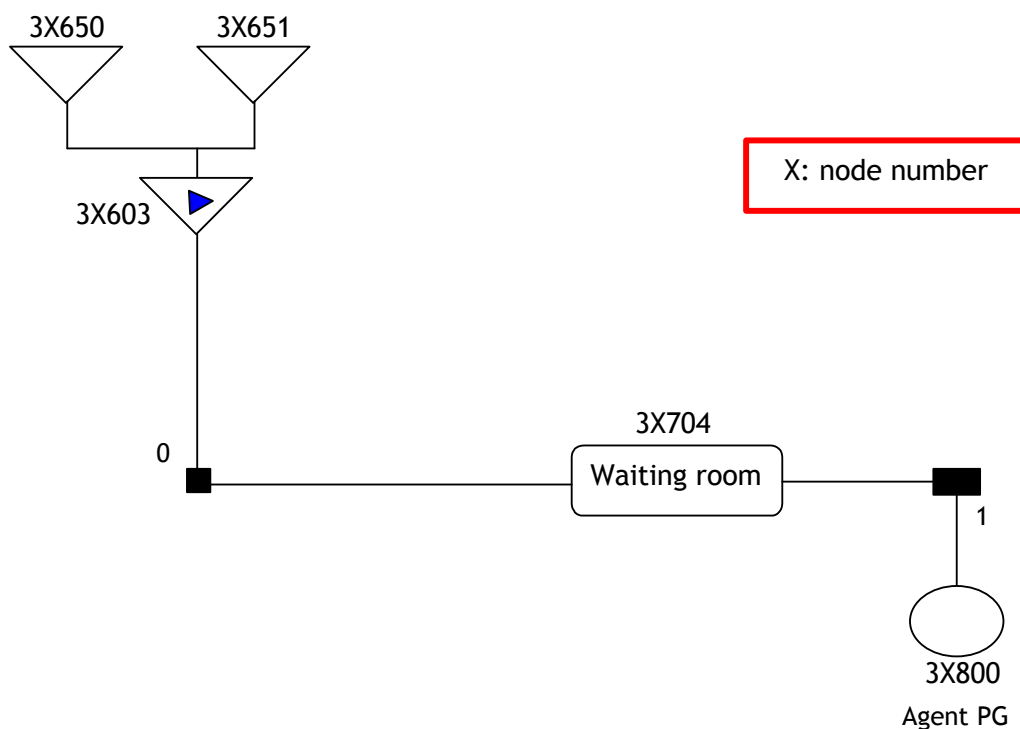
HANDS-ON EXERCISES SOLUTIONS

OBJECTIVE

- To learn how to manage ACR

MANAGEMENT

1. Add the ACR matrix to the existing CC matrix



You have to create 2 statistic pilots (3X650 & 3X651), 1 routing ACR pilot (3X603) and 1 waiting room (3X704)

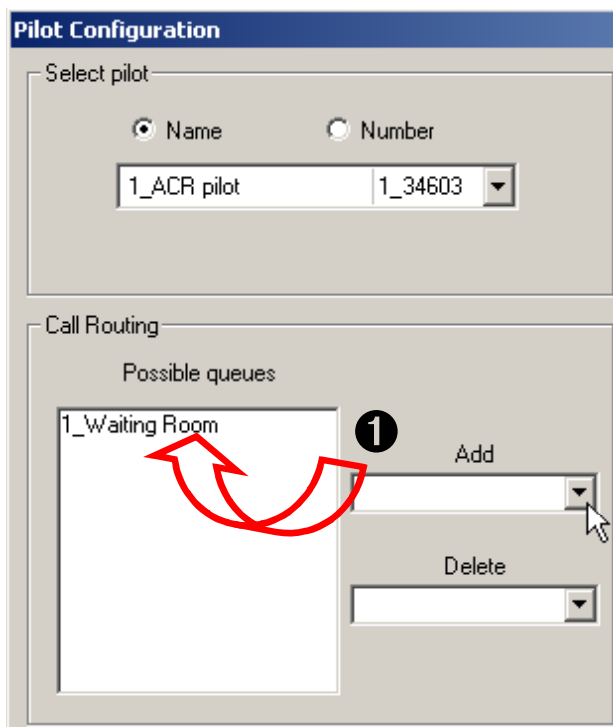
We will use the same Agent PG (3X800) than previously

The following statistics pilots will be connected to the routing pilot 3X603:

Car insurance: 3X650

Home insurance: 3X651

- Using the mgr interface, create the routing pilot 3X603
 - Applications/ CCD/ Pilot (Create)
Pilot Directory Number: 34603 (in this example, X=Node number=4)
Directory Name: ACR pilot
- Create the statistics pilots 3X650 and 3X651 (e.g: X=4)
 - Applications/ CCD/ Statistic pilot (Create)
Pilot Stat. Directory Number: 34650
Directory Name: Car insurance
Routing pilot: 34603
Pilot Stat. Directory Number: 34651
Directory Name: Home insurance
Routing pilot: 34603
- Create the waiting room 3X704 (e.g: X=4)
 - Applications/ CCD/ Queue (Create)
Directory Number: 34704
Name: Waiting room
Type: waiting room
- Add the waiting room 3X704 for the pilot 3X603 (using CCs interface)
 - Configurations/ Pilot



- Create and apply the routing rule "Rule_0" for the pilot 3X603
 - Call Flow mgt/ Call Routing

Pilot rule

☒ Name ☐ Number

Rule_0 0 Active

Rule name : Rule_0

Buttons: Apply (3), Create (1), Delete, Save, Save as

- Open the direction to the queue 3X704 and set the call routing priority to 0
 - Call Flow mgt/ Call Routing

Call Routing

Pilot: 1_ACR pilot

Status: Calendar Inhibited, Rule used

Traffic (calls/mn): 0

Buttons: Set to FWD, Configuration ...

Normal mode (1)

Main Direction	For Pilot	Normal	Blocked	Queue	Priority	Handic	MWT	Status	Filling rate (Pilot & Total)	EWT (s)	Traffic (calls/mn)
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1_Waiting Room	0 (3)	0	300	Open		0	0

- Add the Agent PG (3X800) for the waiting room 3X704
 - Configurations/ Queue and waiting room

Queue or Waiting Room Configuration

Select a queue or a waiting room

☒ Name ☐ Number

1_Waiting Room 1_34704

Type: Waiting room

Change queue/waiting room name: Waiting Room

Maximum waiting time: 300 sec.

Maximum waiting time alert threshold: 15 sec.

Queuing overflow

Address: []

Delay: [] sec.

Overflow on ringing

Address: []

Delay: [] sec.

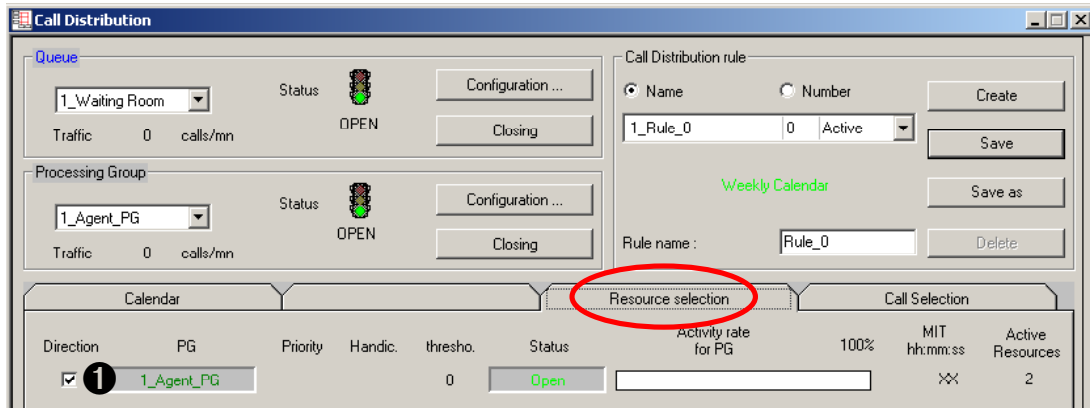
Call Distribution

Possible PG

1_Agent_PG

Buttons: Add (1), Delete, Cancel, OK, Exit

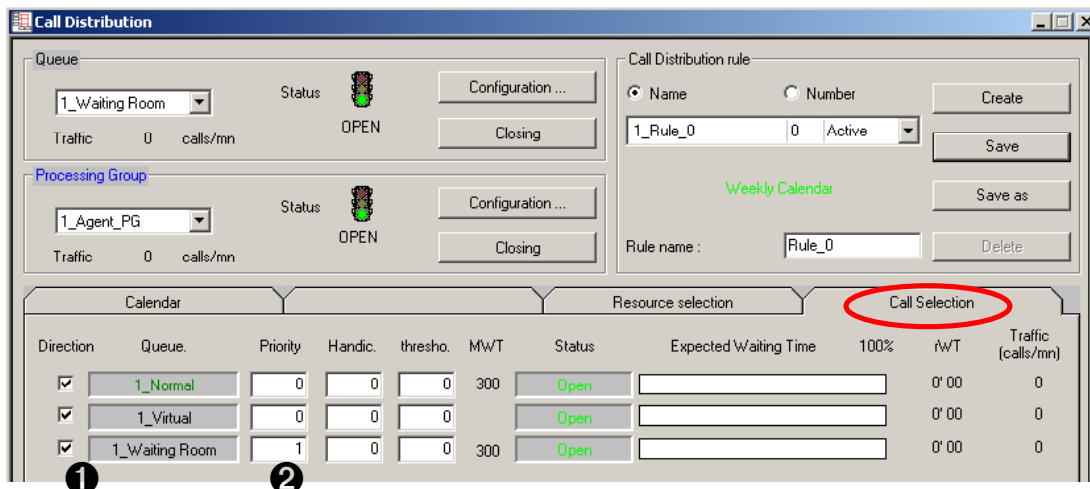
- Open the direction to the Agent PG 3X800
 - Call Flow mgt/ Call Distribution



The screenshot shows the 'Call Distribution' window. The 'Queue' section has '1_Waiting Room' selected with a status of 'OPEN'. The 'Processing Group' section has '1_Agent_PG' selected with a status of 'OPEN'. The 'Call Distribution rule' section shows '1_Rule_0' as the active rule. The 'Resource selection' tab is highlighted with a red circle. Below it, a table shows the resource selection details:

Direction	PG	Priority	Handic.	thresho.	Status	Activity rate for PG	MIT hh:mm:ss	Active Resources
<input checked="" type="checkbox"/>	1_Agent_PG			0	Open		×	2

- Modify the call selection priority to 1
 - Call Flow mgt/ Call Distribution

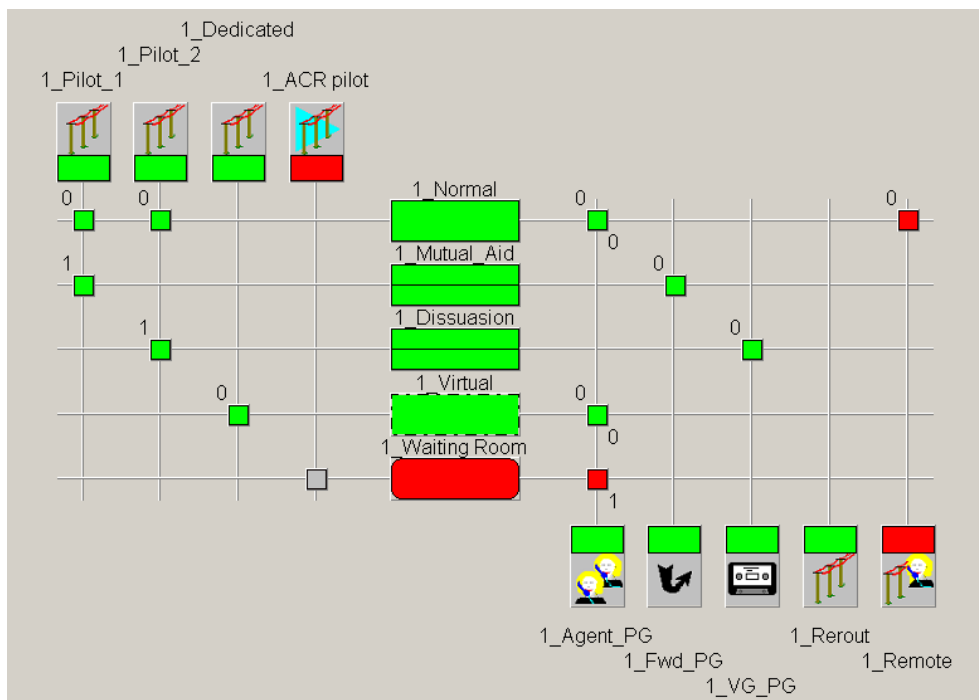


The screenshot shows the 'Call Distribution' window with the 'Call Selection' tab highlighted with a red circle. The table below shows the call selection details:

Direction	Queue.	Priority	Handic.	thresho.	MW/T	Status	Expected Waiting Time	100%	hWT	Traffic (calls/mn)
<input checked="" type="checkbox"/>	1_Normal	0	0	0	300	Open			0' 00	0
<input checked="" type="checkbox"/>	1_Virtual	0	0	0		Open			0' 00	0
<input checked="" type="checkbox"/>	1_Waiting Room	1	0	0	300	Open			0' 00	0

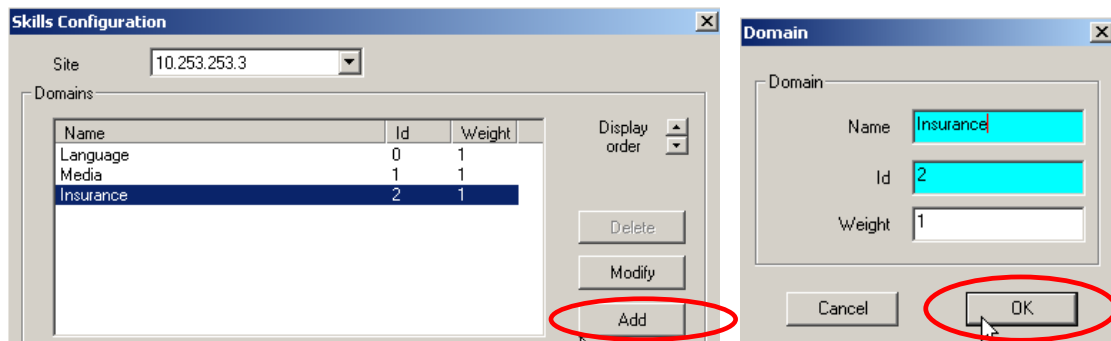
Log on some agents in the PG 3X800 (Agents have no skill up to now!!!!!!)

- The matrix is shown below:

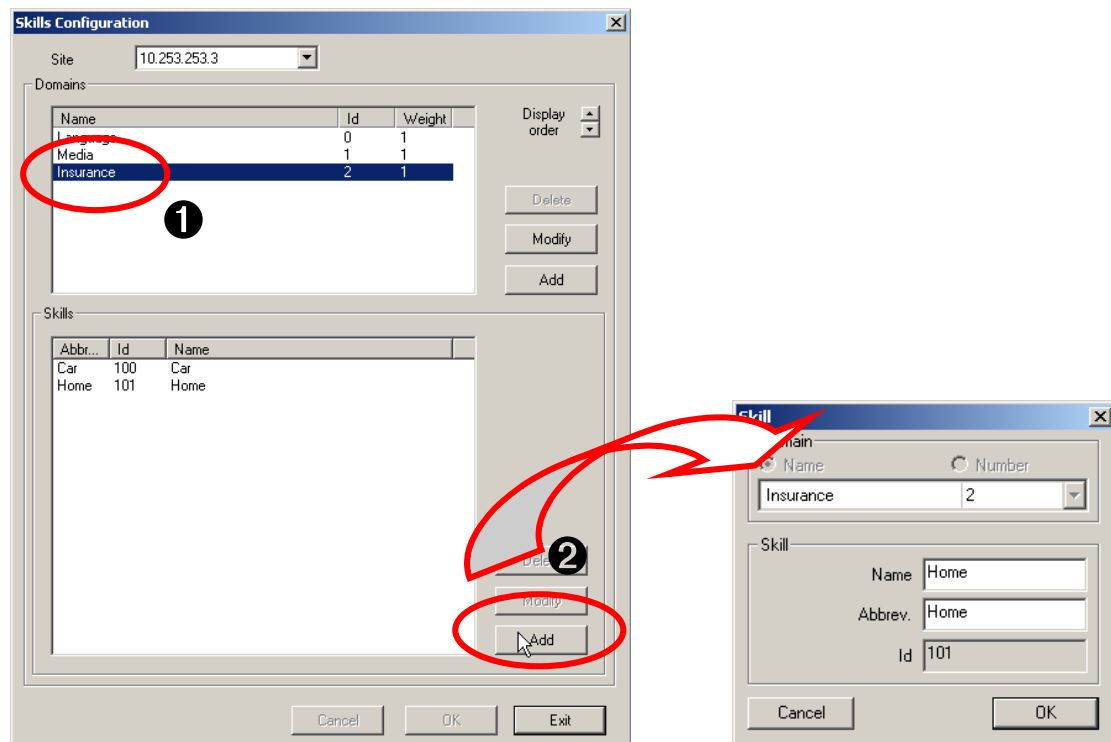


The ACR pilot 34603 is blocked because no ACR agent is logged on.

2. Create a new domain
 - Domain name: Insurance
 - From the CCs interface:
 - Configurations/ Advanced Call Routing/ Skill



3. Create 2 new skills in the "Insurance" domain
 - Skill: Car
 - Skill: Home



4. Create 2 call profiles

Profile 1

- Language: English / level 5 / mandatory
- Insurance: Car / level 8 / mandatory

Profile 2

- Language: English / level 5 / mandatory
- Insurance: Home / level 8 / mandatory
- Configurations/ Advanced Call Routing/ ACR Data
 - Call Profile/ Add

Call Profile Configuration

Name: Id:

Definition

N...	Abbr...	Domain	Skill	L...	C...	P...
2	ANG	Language	English	5	M	1
100	Car	Insurance	Car	8	M	N.S

Buttons: Add >, Remove <, Modify >

Level: Mandatory: ☐ Optional: ☐ Preference:

Buttons: Cancel, OK

5. Assign the call profiles to the statistic pilots

Car insurance: 3X650 ➔ profile 1
Home insurance: 3X651 ➔ profile 2

- From CCs
 - Configurations/ Statistics Pilot

Statistics Pilot configuration

Select Statistics Pilot: ☐ Name ☐ Number

Change the Statistic Pilot directory:
 Change Statistic Pilot Name:
 Change the Routing pilot:

Presentation Guides

	Guide n°	# diff.	Duration
Normal :	<input type="text" value="70"/>	<input type="text"/>	<input type="text" value="10.0"/> sec.
General forwarding :	<input type="text" value="71"/>	<input type="text"/>	<input type="text" value="10.0"/> sec.
Blockage :	<input type="text" value="72"/>	<input type="text"/>	<input type="text" value="10.0"/> sec.

Call Profile associated

Call Profile	Id
Call_Profile_1	1
Call_Profile_2	2
None	-1

Buttons: Call Profile Configuration..., Call Tags Configuration...

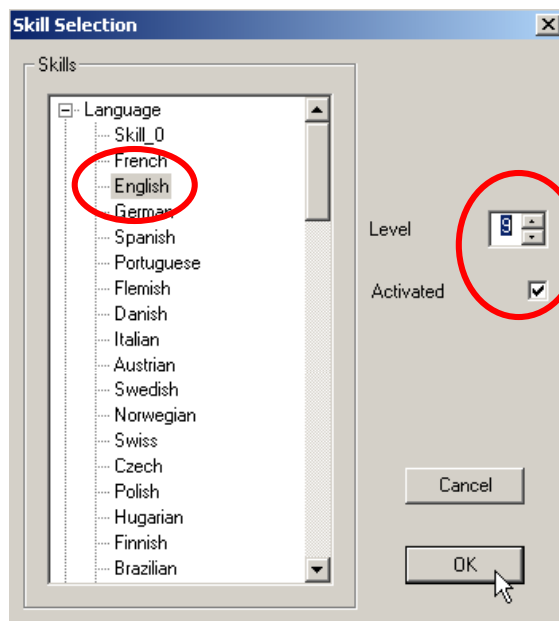
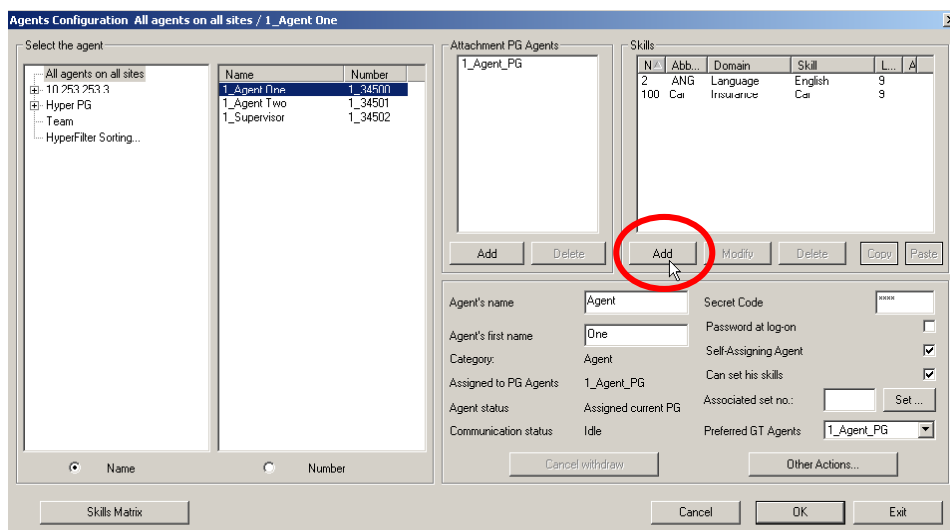
Call Priority:

Overview of the selected call profile content:

N...	Name	Abbr...	Domain	L...	C...	P...
2	English	ANG	Language	5	M	N...
100	Car	Car	Insurance	8	M	N...

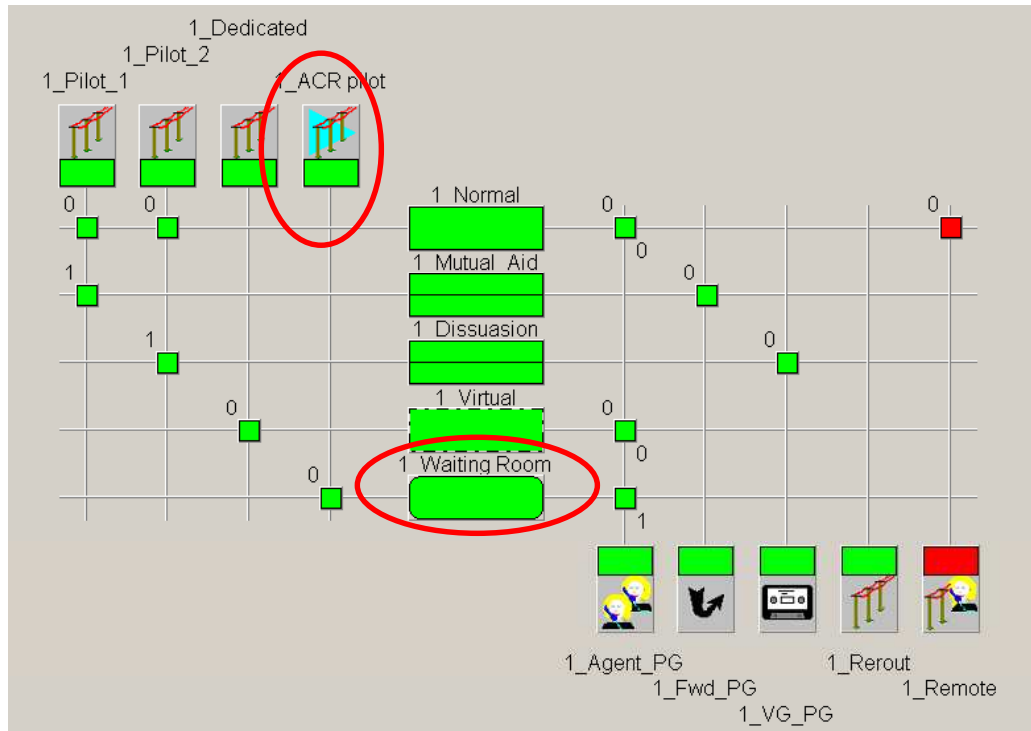
Buttons: Cancel, OK, Exit

6. Assign the skills to the agents
 - Agent_1 (3X500)
 - Language: English / level 9
 - Insurance: Car / level 9
 - Agent_2 (3X501)
 - Language: English / level 9
 - Insurance: Home / level 9
 - From the CCs
 - Configurations/ Agent



Log on the agent 3X500 and the agent 3X501

Now the ACR pilot is opened because some ACR agents are logged on.



7. Call the statistic pilot;

What happens?

As no script is attached to the ACR pilot, the waiting room is not used;

The system will try to use an other waiting queue, if possible.

As last resort, the ACR pilot blockage data (voice guide or address) will be used.

Alcatel-Lucent OmniTouch Contact Center Standard Edition



ASM script editor



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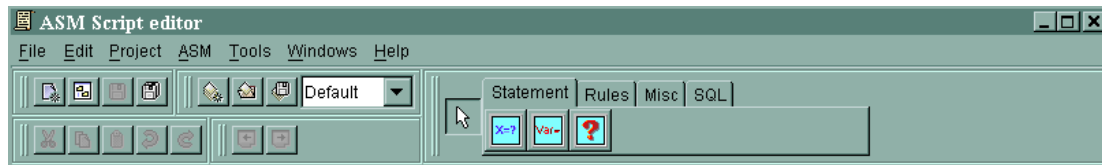
1

OBJECTIVES

- ◆ To know the possibilities of the ASM Script Editor
- ◆ To know the Building Blocks used in the script

- Included in the CCs

- Configurations/ Advanced Call Routing/ ASM Script Editor



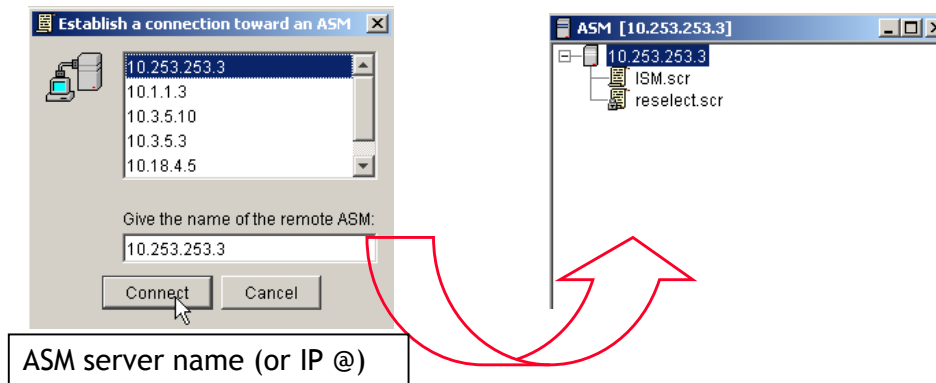
- 2 possibilities to create ACR scripts

- ☐ With ASM server connection
 - ASM/ connection
- ☐ Without ASM server connection
 - File/ Add new

■ To create script with ASM server connection

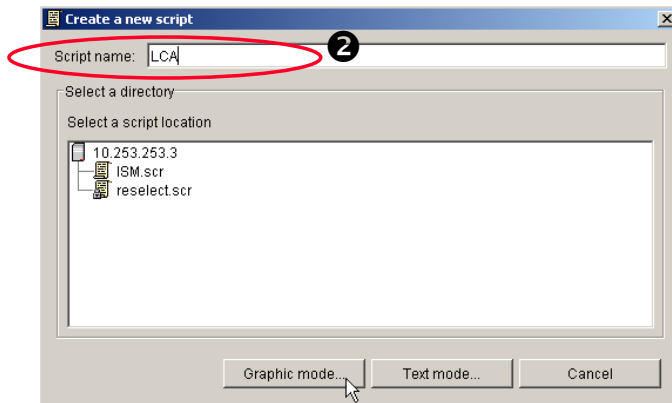
● ASM/ connection

- Choose the ACR site if it is created or give the remote ASM server name (or IP address)

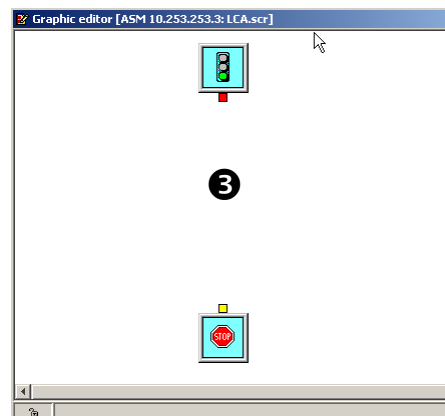
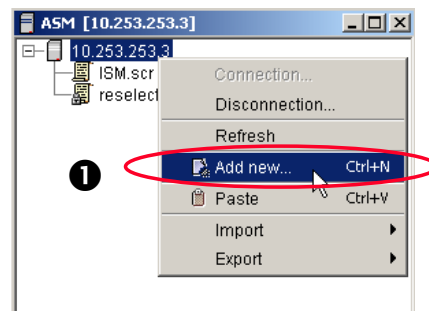


- Scripts will be saved on the ASM server
- It will be possible to attach them to an ACR pilot

- To create a new script
 - Right click on the connected site
 - Add new



Script name is limited to 8 characters



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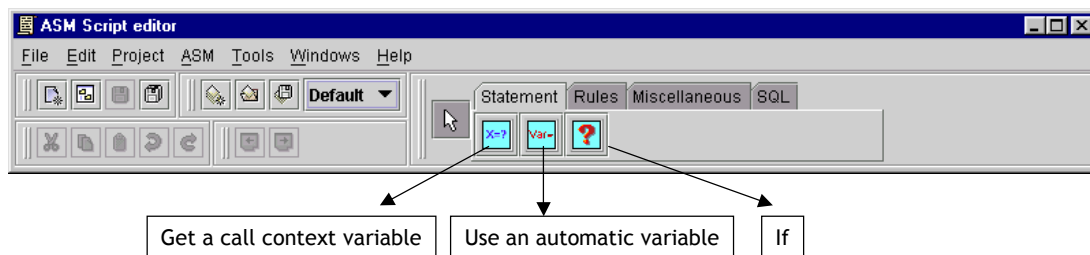
4

- 1-Add a new script
- 2-Assign a name to the script
- 3-Build the script

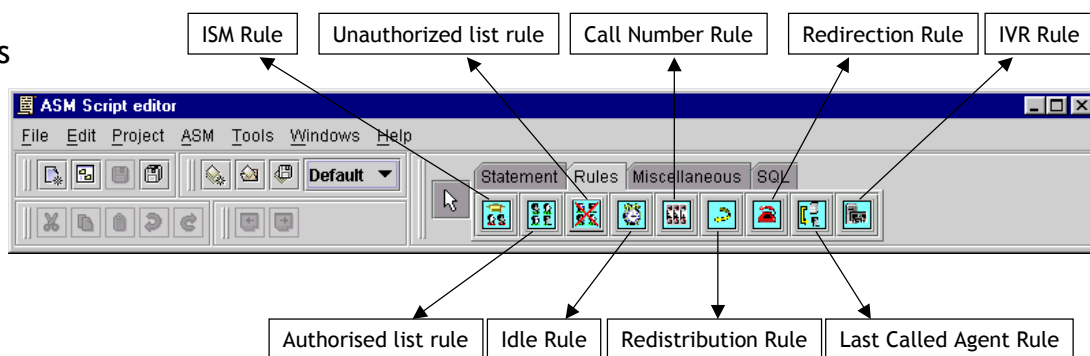
The script directory is /usr3/afe for an internal ASM server.

The script directory is Program files/ Alcatel/ Agent Selector Module/ Script for an external ASM server.

■ Statement



■ Rules

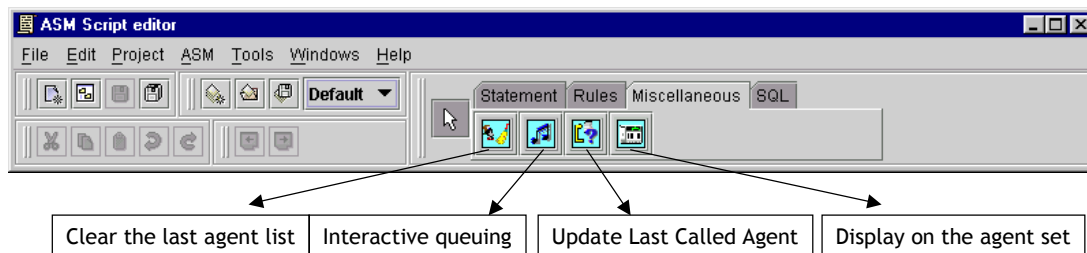


Context variable: Priority, Reselection_timeout, Language

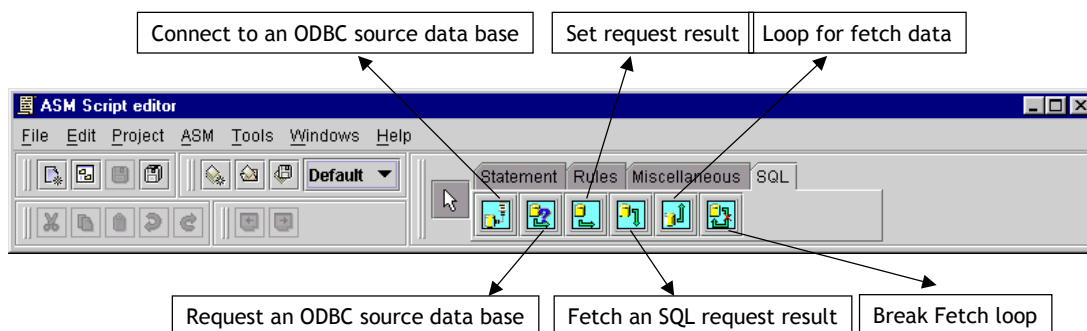
Automatic variable: List, Integer, String, Time, Date, TimeStamp

If (condition): Agents_List, Agent_Number, Authorised_List, Calling, Called, Call_Type, Calltag, Call_

■ Miscellaneous

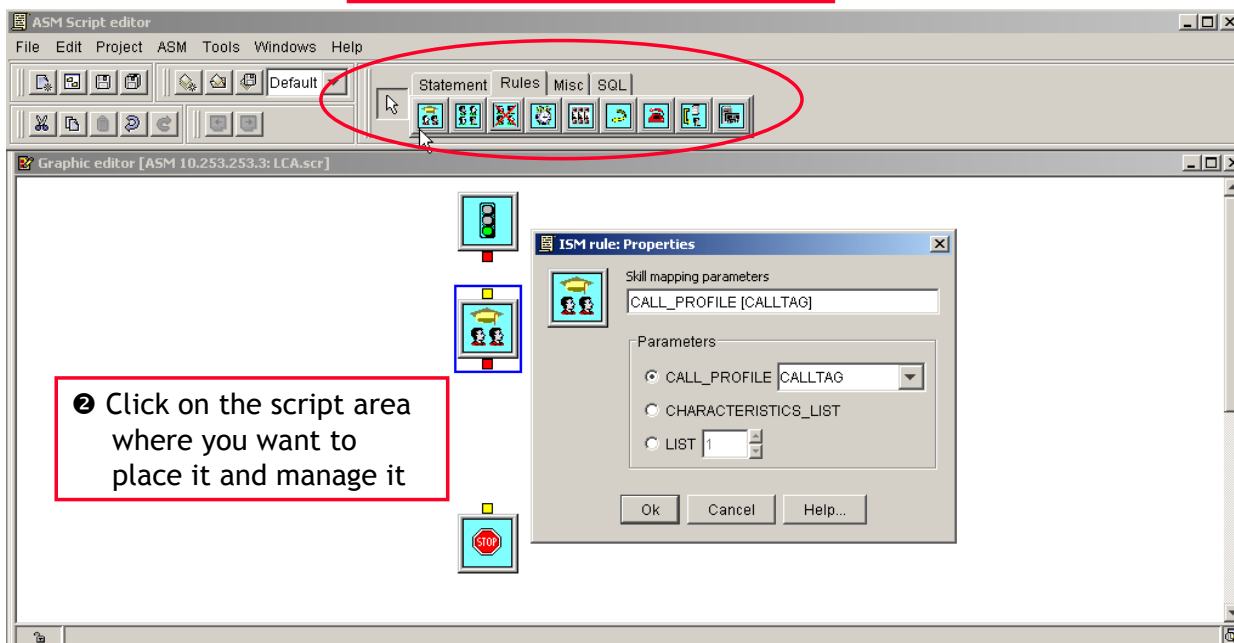


■ SQL

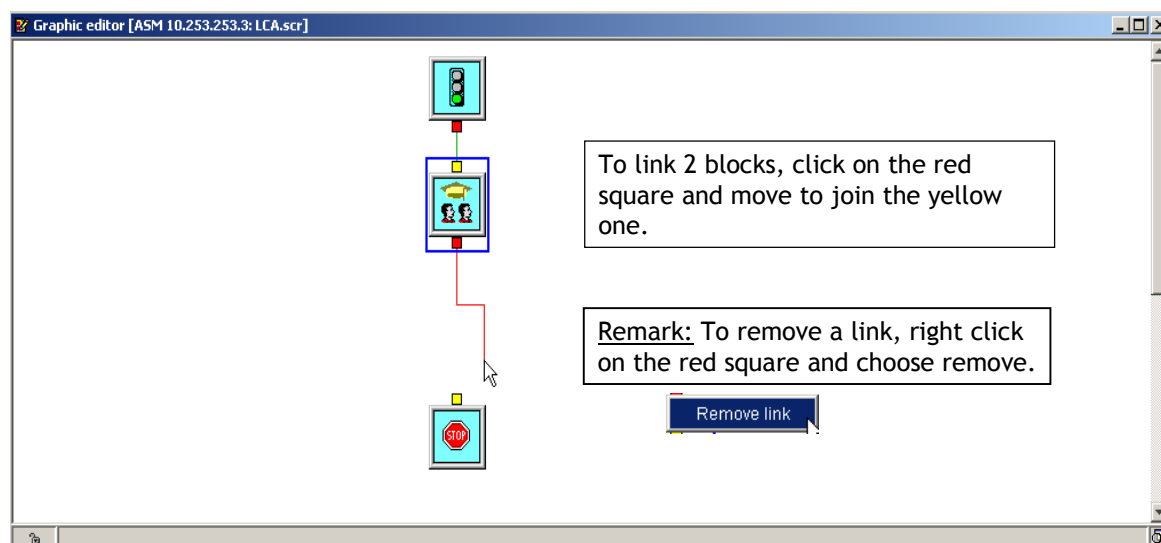


■ Building Block choice

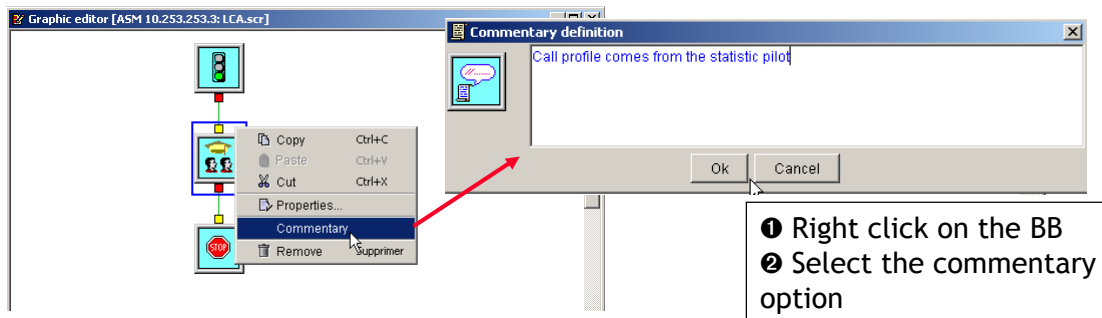
❶ Choose the right building block



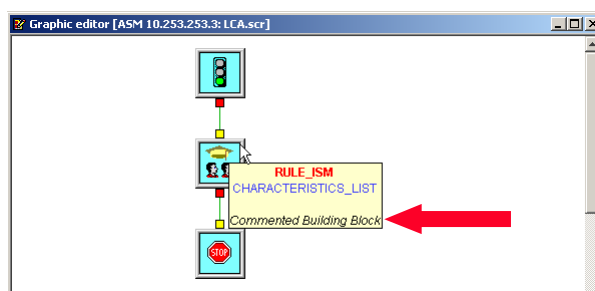
■ Building Block connection

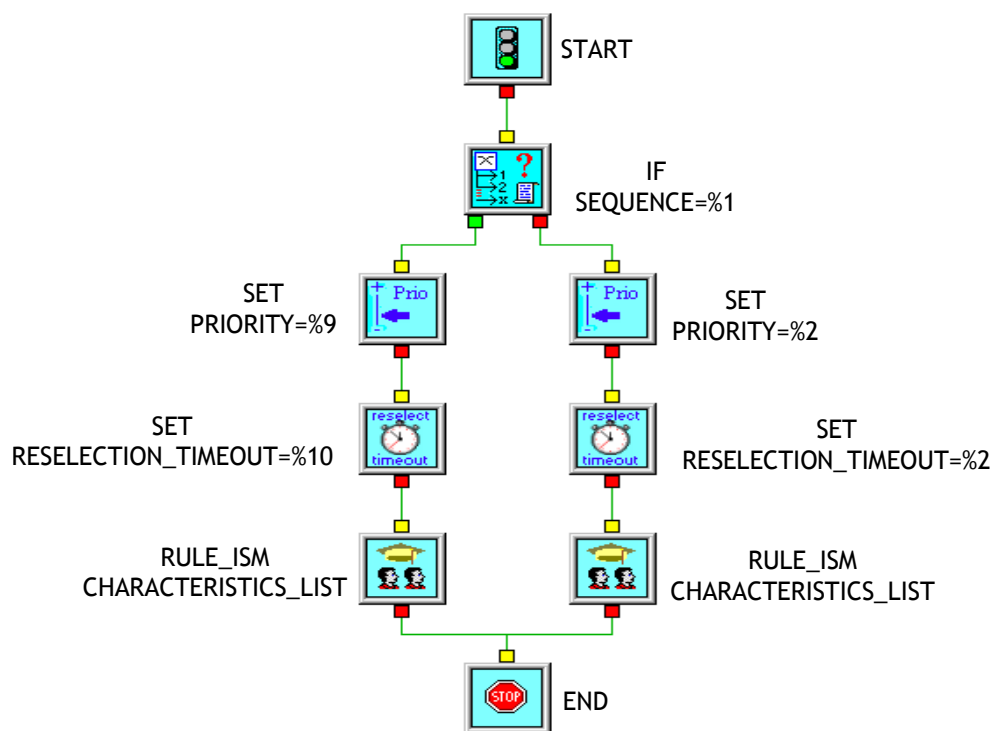


- Commentary can be added for each building block



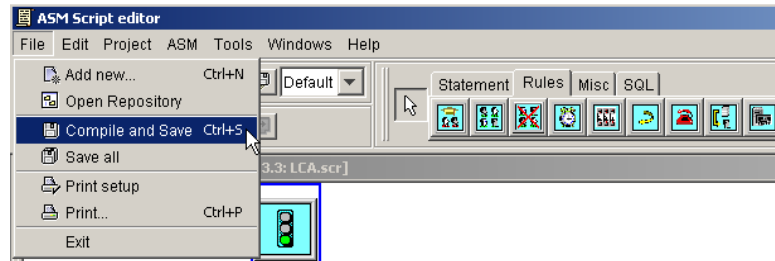
- This commentary can be then consulted





■ Script compilation

- When the script is completed, it must be saved & compiled



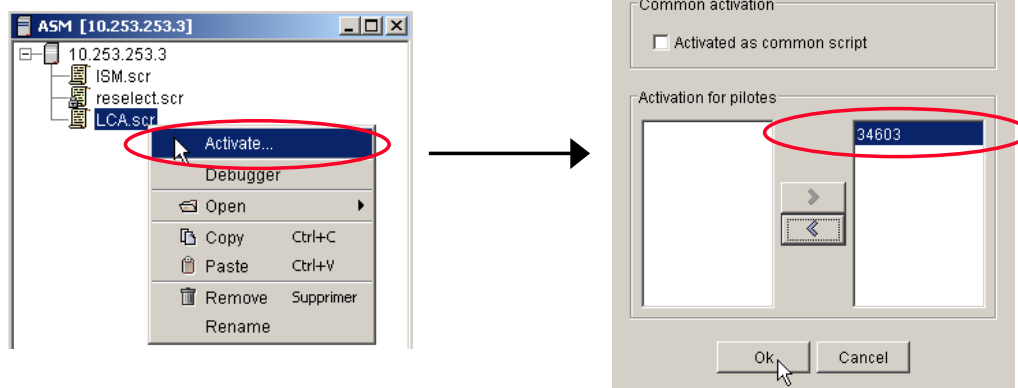
- 2 files will be generated
 - “Script_name”.scr
 - “Script_name”.alb
- The scripts are saved in “/usr3/afe” for an internal ASM server (“alb” process)

The scripts have an extension *.scr and after compiling *.alb.

The script directory is Program files/ Alcatel/ Agent Selector Module/ Script for an external ASM server.

■ Script activation

- Choose the script to activate
- Attach it to an ACR pilot

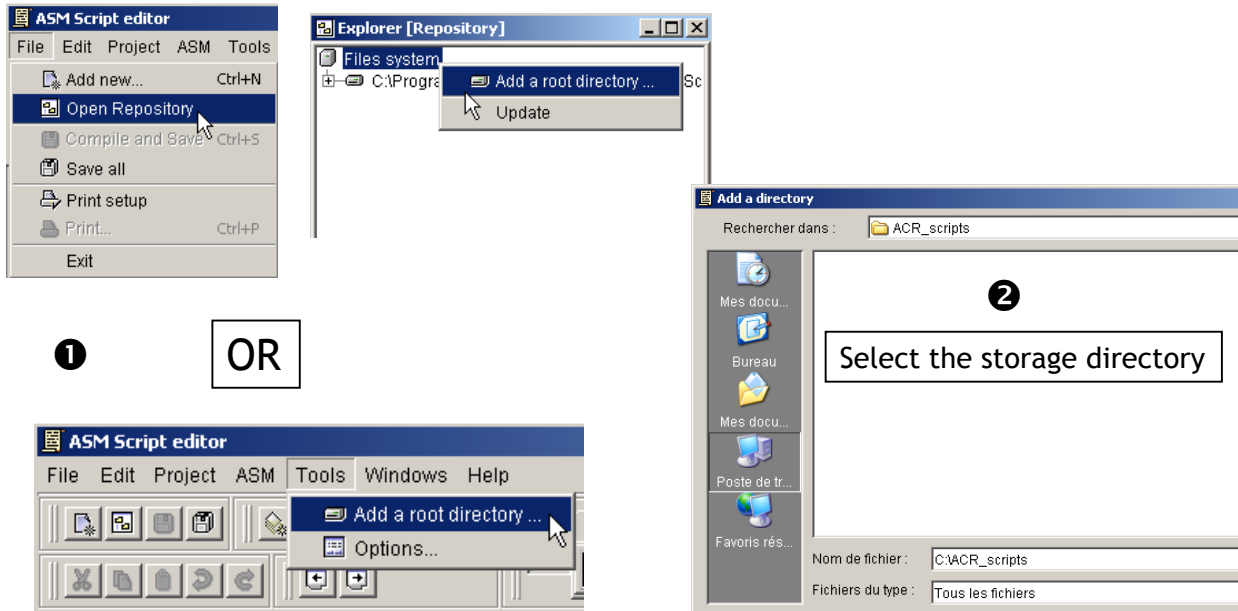


- Note:
 - 1 script per pilot
 - The same script can be activated on several pilots (pilot selection)
 - The same script can be activated on all pilots ("common script" option)

There is only one script activated per pilot.

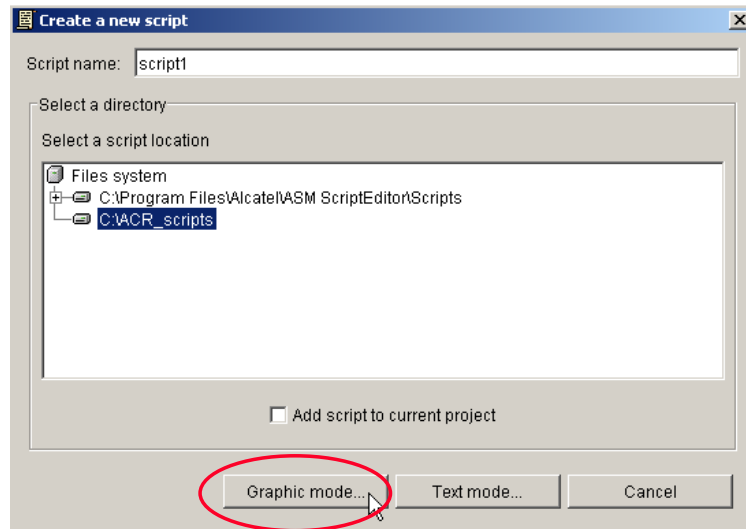
- For an off-line script creation, first of all, specify the storage directory

- 2 different ways



■ To create script without ASM connection

- File/ Add new



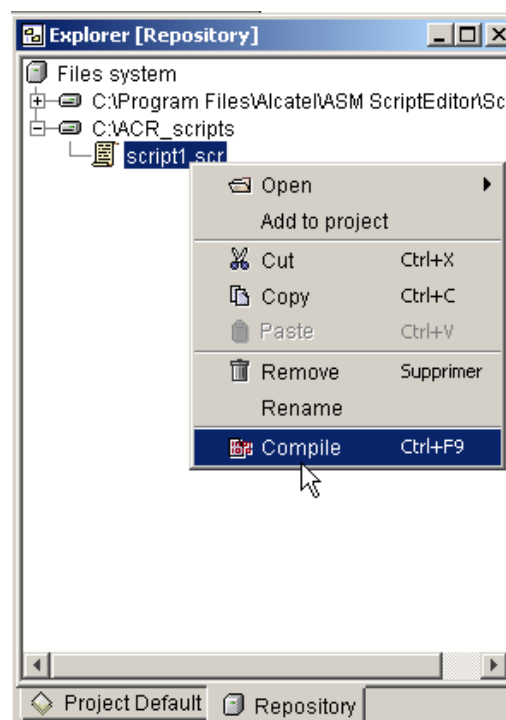
- Scripts will be saved under the selected directory.
- To attach it to an ACR pilot, you must export it into the ASM server.

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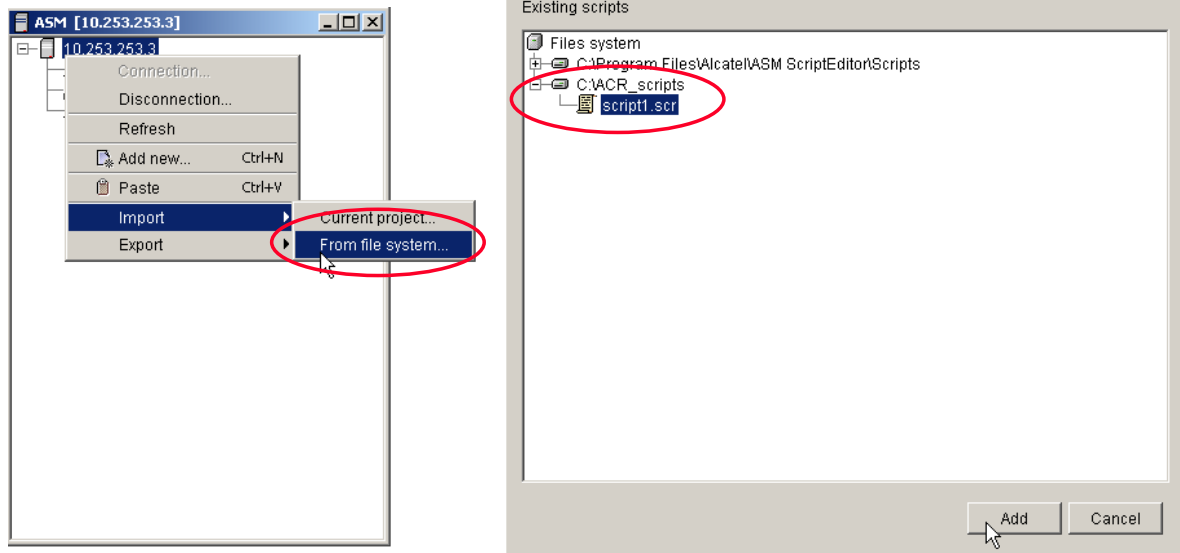
The file .scr will be saved in this directory (on the PC). To activate it on a pilot you have to connect the ASM server and to import this file from the PC to the ASM server (internal or external).

To compile the file before importing it, you can do that under “File/ Open Repository”



■ Script importation

- Set up the connection to the ASM server
 - Select ASM/ connection
- Import the script



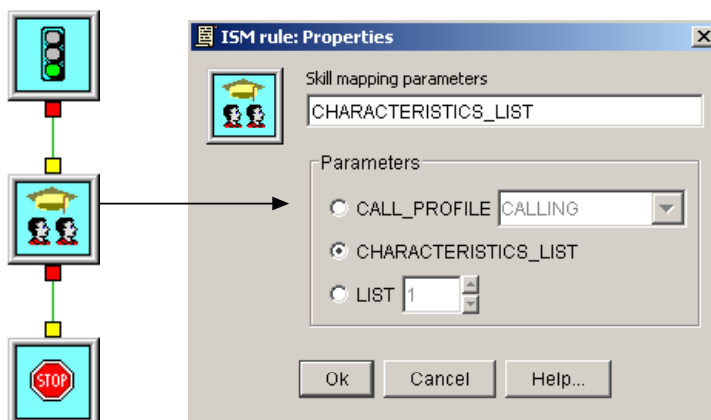
HANDS-ON EXERCISES

OBJECTIVE

- To learn how to create ACR scripts & to use the ISM rule

MANAGEMENT

1. Make some calls on the statistics pilots "car insurance" and "home insurance".
Before calling these pilots, create a simple ACR script, named "ISM", as shown below and attach it to the routing pilot 3X603:



Which agent(s) is rung when you call the "Car Insurance" statistic pilot (3X650)?
Which agent(s) is rung when you call the "Home Insurance" statistic pilot (3X651)?

2. Assign the "car" skill to the agent 3X501;
Call the "Car Insurance" statistic pilot (3X650)
Which agent(s) is (are) rung?
Does the system use LIT for call distribution on agents?

3. Create an other script "ISM_idle", in which you are going to use ISM rule & Idle rule, to retrieve the Longest Idle Time functioning in the agent_list.
Create for that the "patchIdle" file under usr2/afe and restart the MAIN_AFE process.
(TAKE CARE: patchIdle with capital I)
Call the "Car Insurance" statistic pilot (3X650)
Which agent(s) is (are) rung ?
Does the system use LIT for call distribution on agents?
4. For the agent_2 (3X501), give the right to deactivate the skills using his set.
Deactivate from the set the "home" skill
Check that this operation is also synchronized in the CCs (skill matrix)
5. Agent_2 has deactivated the "Home" skill, so no more agent has this skill
Call the statistics pilot 3X651 (Home Insurance) and check the consequence.

HANDS-ON EXERCISES SOLUTIONS

OBJECTIVE

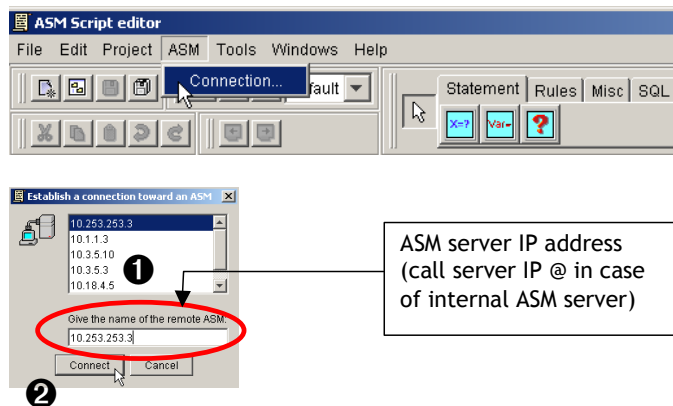
- To learn how to create ACR scripts & to use ISM rule

MANAGEMENT

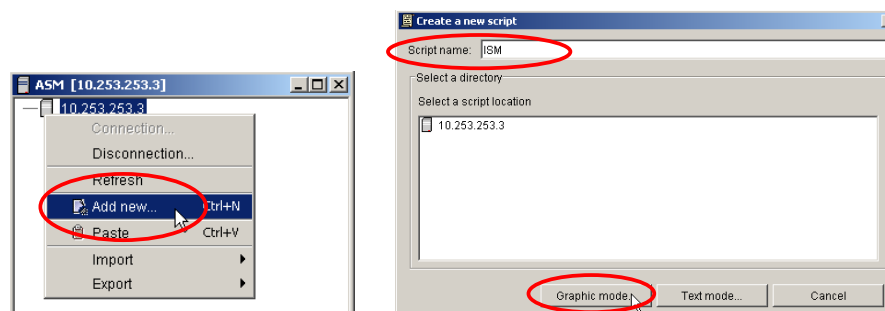
1. Make some calls on the statistics pilots "car insurance" and "home insurance".

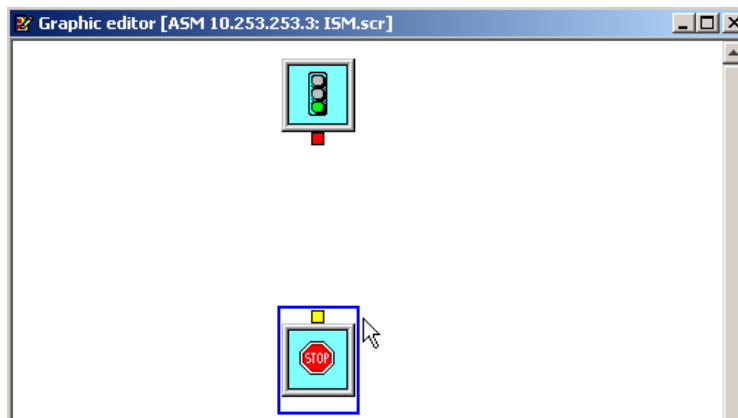
Before calling these pilots, create a simple ACR script as shown below and attach it to the routing pilot 3X603:

- Through the CCs interface,
 - Configurations/ Advanced Call Routing/ ASM Script Editor



Create the simple script, directly, on the ASM server. In our case, it's a local ASM server, so the created script will be stored in the directory /usr3/afe.





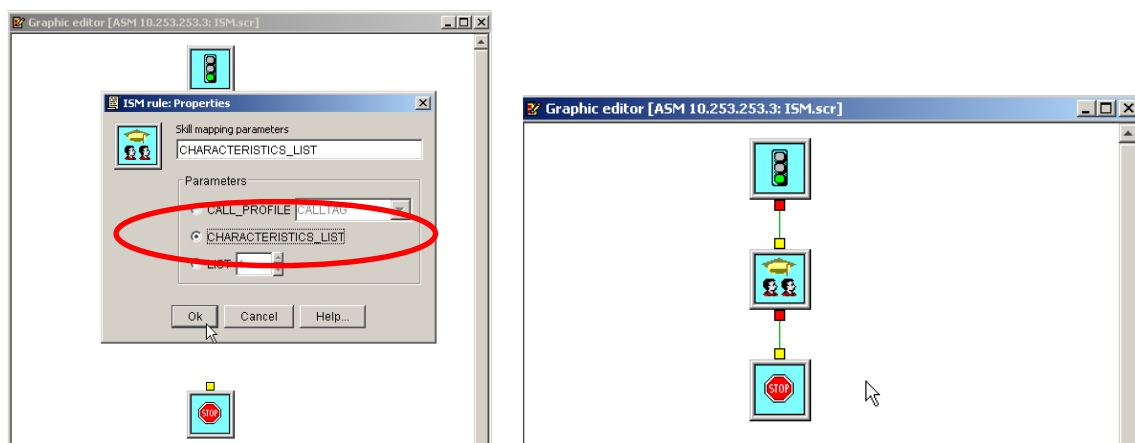
Select the ISM rule, and add it to your script



When the building block (ISM rule) appears, check the “characteristics_list” parameter;

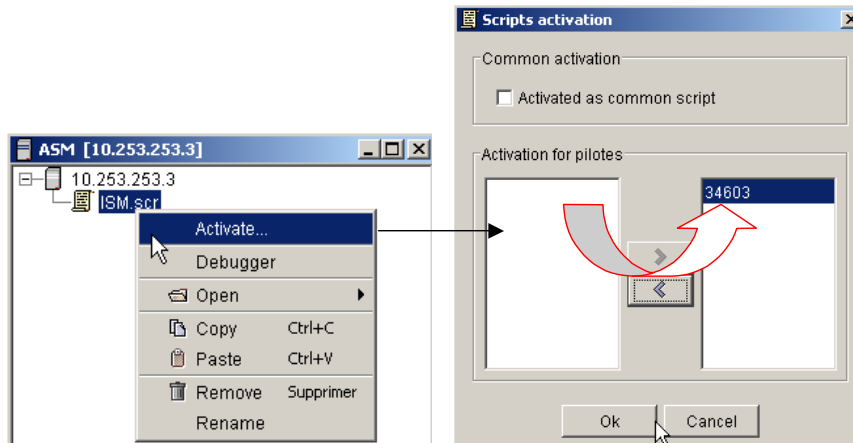
It means that the call profile which will be used by the ISM rule comes from the call context (so comes from the statistic pilot)

- Note: in the ACR “Advanced” training, some others solutions are explained: call profile can be provided by the internal database (according to caller / called / call tag), or by a list variable



- Compile and save the ACR script:
 - File/ Compile and Save (CTRL S)

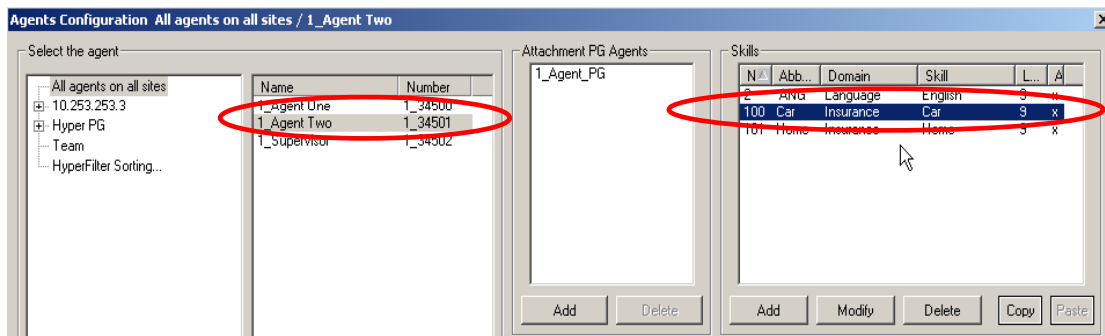
- Activate the script on the ACR pilot 3X603



Agent_1 (3X500) is rung when you call the statistic pilot 3X650 (Car Insurance).

Agent_2 (3X501) is ringing when you call the statistic pilot 3X651 (Home Insurance).

2. Assign the “car” skill to the agent 3X501;



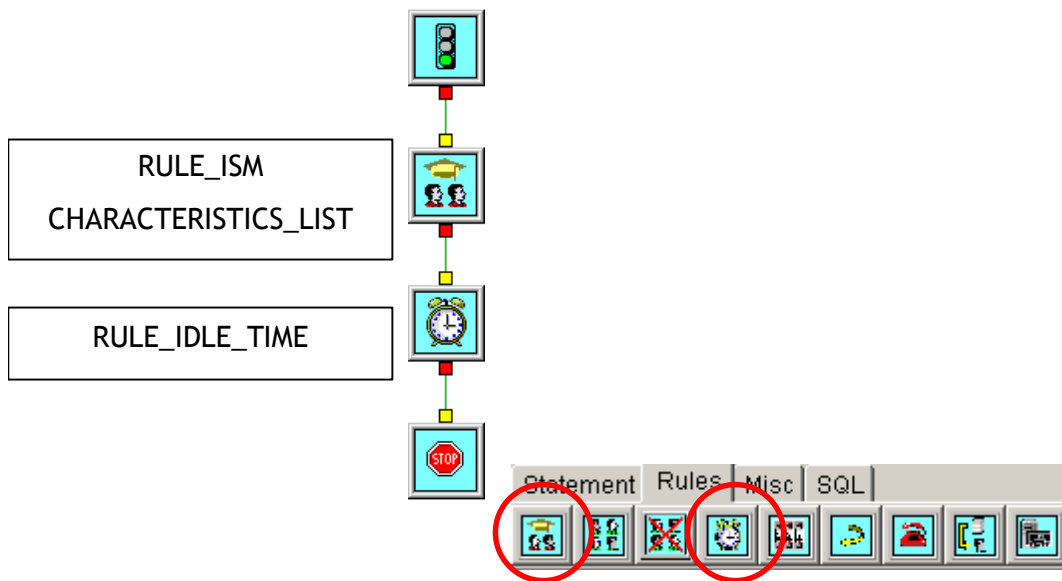
Call the “Car Insurance” statistic pilot (3X650)

Both agents (3X500 & 3X501) can be rung

Does the system use LIT for call distribution on agents?

NO, LIT is not used by default cause the agent statistics are refreshed only every 5 mn;
which means that with a low traffic, the same agent will be rung every 5 mn

3. Create an other script "ISM_idle" to retrieve the Longuest Idle Time functioning in the agent_list.
 - Create for that the "patchIdle" file under usr2/afe and restart the MAIN_AFE process.
(101)xa001001> cd /usr2/afe
(101)xa001001> touch patchIdle
(101)xa001001> dhs3_init -R MAIN_AFE
 - Now create the ASM script



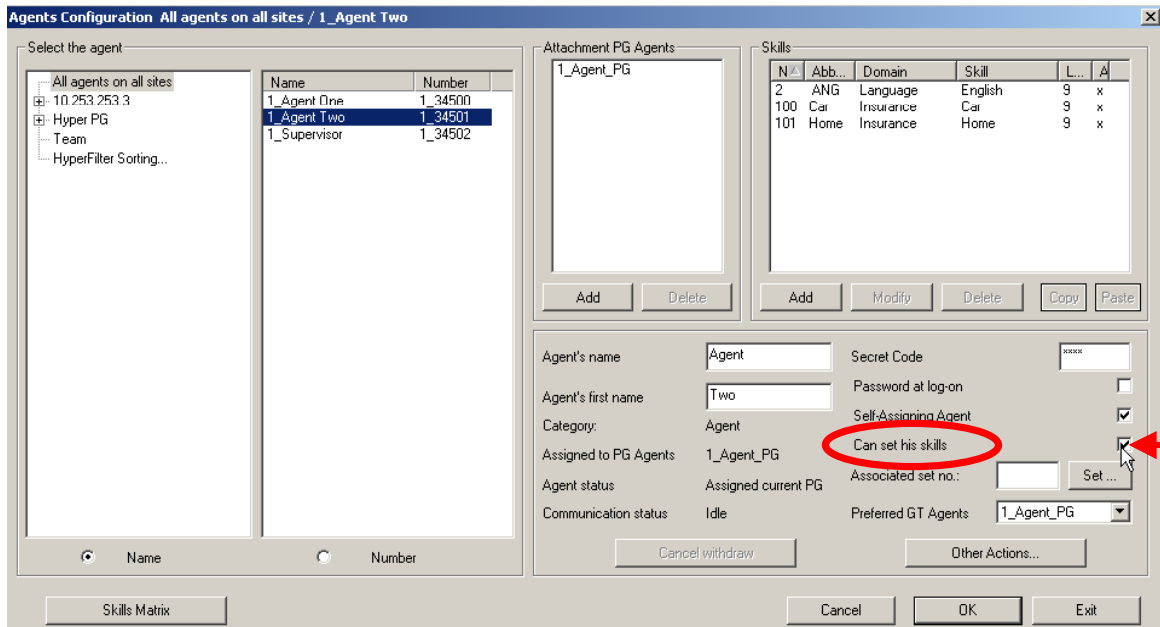
Call the "Car Insurance" statistic pilot (3X650)

Both agents (3X500 & 3X501) can be rung

Does the system use LIT for call distribution on agents?

Yes, cause "patchIdle" file is created

4. For the agent_2, give the right to deactivate the skills using his set.
 - For the management, shown below, we used the CCs interface:
 - Configurations/ Agent



Now, from the set, agent_2 can visualize his skill and can deactivate them.

On the second screen, select the option "ACRMng".

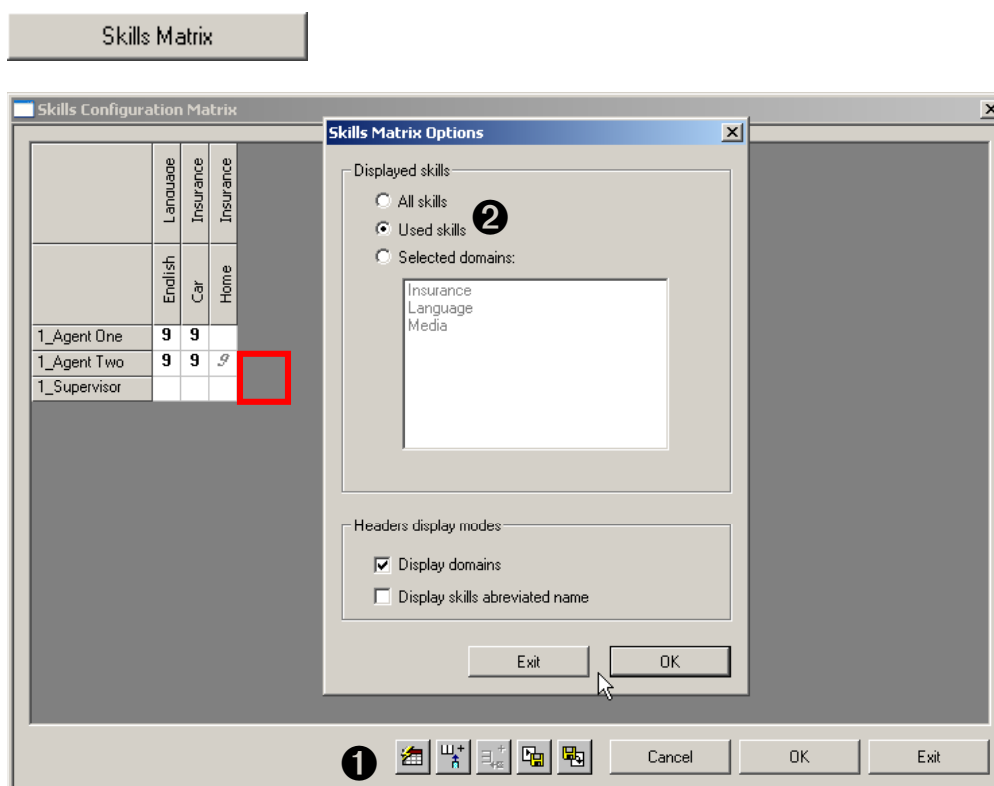


Example: deactivate the “home” skill from the set



Now, if you check on the CCs using the Skill matrix option, you see also the skill de-activation:

- Configurations/ Agent



The level of the de-activated skill is displayed in grey color and in *italic* mode.



5. Agent_2 has deactivated the "Home" skill. Call the statistics pilot 3X651 and check the consequence.
When you call the Statistic pilot 3X651 (Call Profile 2: English and Home), the alb process makes 20 requests (script is executed 20 times) and in case of empty agent list, the call follows the routing management. If no other direction (mutual aid, ...) is available, as last resort, the call uses the ACR pilot blockage mode.

Alcatel-Lucent OmniTouch Contact Center Standard Edition



Script Editor Debugger



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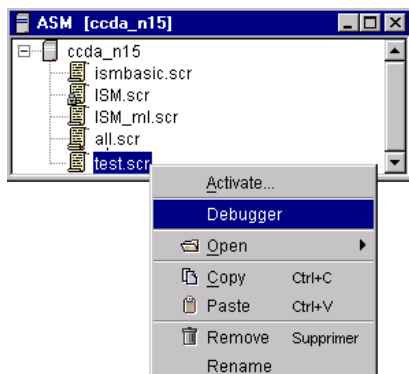
1

OBJECTIVES

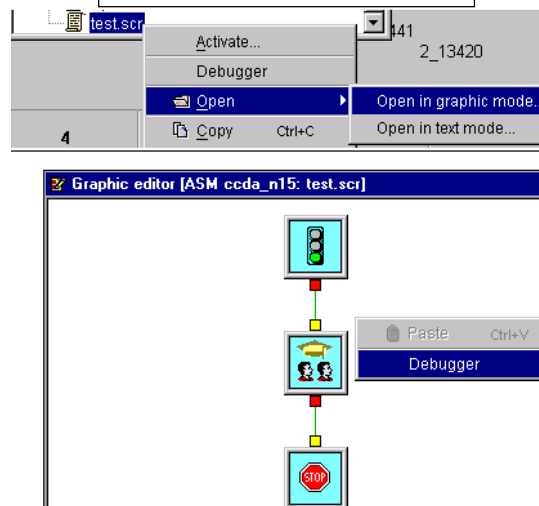
- ◆ To edit ACR script trace using debugger
- ◆ To filter your trace
- ◆ To make call using debugger window

- The script editor implemented in the CCs :
 - 2 possibilities to open the debugger window:
 - Configurations / Advanced Call Routing / ASM Script Editor

First possibility



Second possibility



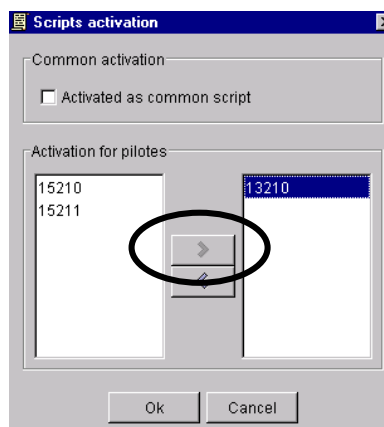
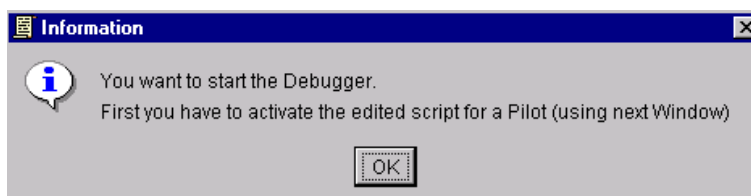
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2

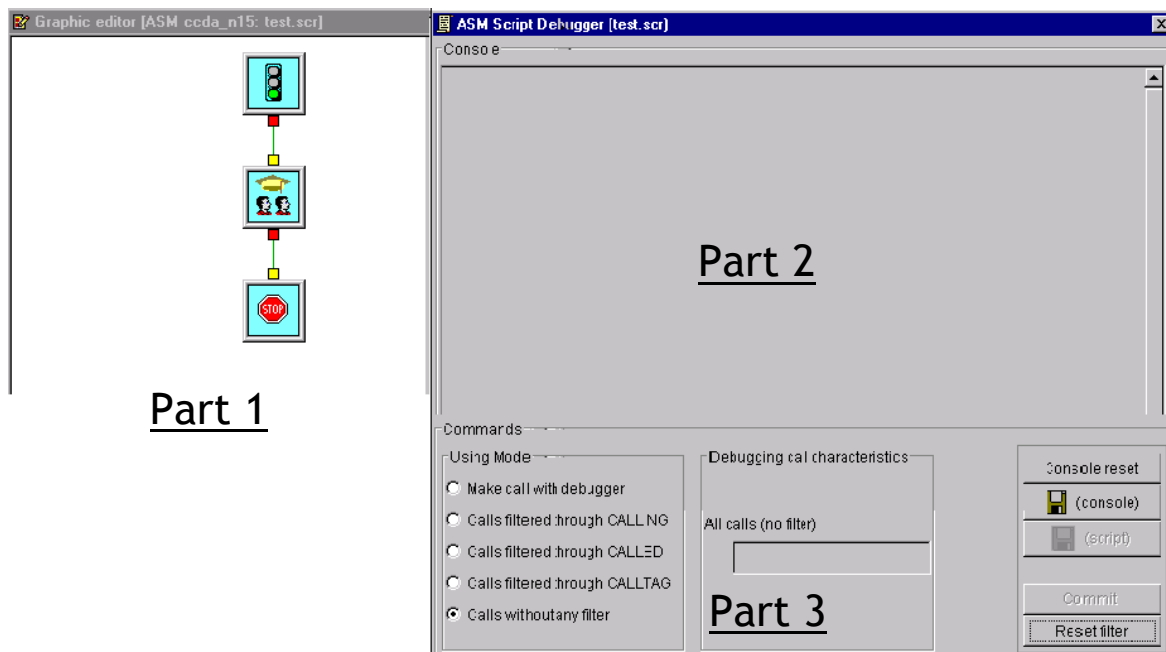
The DEBUGGER is compatible from OmniPCX 5.1.

Right click on the script name and select Debugger or right click on the graphic window and select Debugger.

To start the debugger, you must activate the script to a routing pilot.



■ ASM script debugger

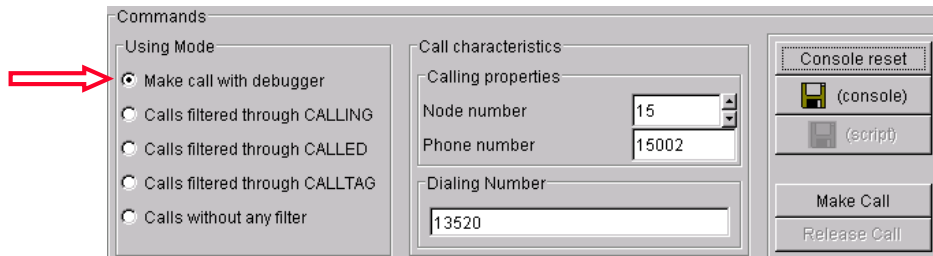


The debugger is divided into 3 parts:

- part 1: the script graphic mode window. It's a view of the script, where you can't modify or delete any object.
- part 2: the console window shows the script trace. If you move the mouse under the script trace, you can see in which building block the call goes through.
- part 3: the commands window part. It allows the activation of filters to analyze a call routing.

■ Commands window

● Make call with debugger



-Node number: the node from which you initiate the call

-Phone number: the extension which makes the call



This extension must be a normal user, neither agent nor supervisor.

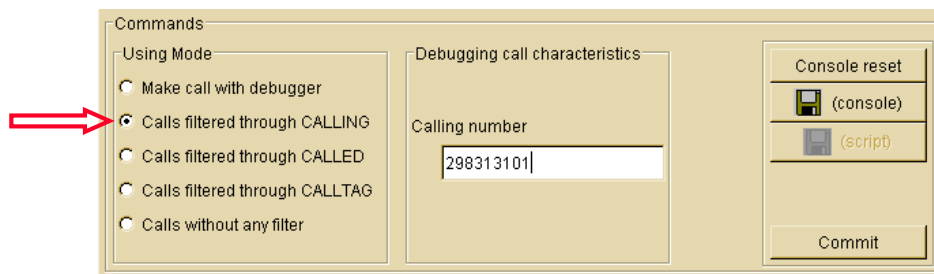
-Dialing number: the number you want to call

-"Make call" button: to start the make call

-"Release call" button: to release the call

When you have managed the different parameters, you click on "Make call", the set (15002) is ringing and "CALL ALLOWED" is displayed on the screen. Then script is executed and an agent list is returned. First free agent is ringing.

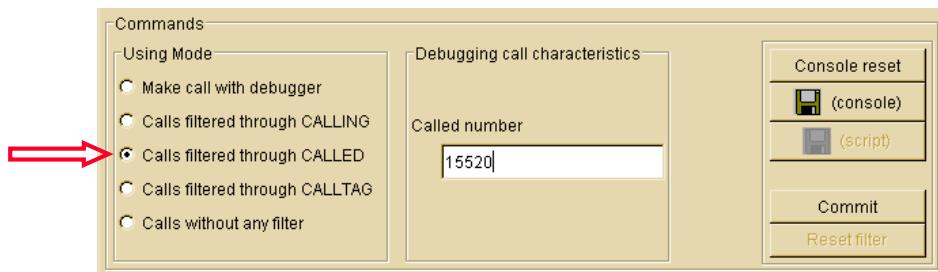
- Commands window
 - Calls filtered through CALLING



- Calling number: enter calling number
- "Commit" button: to confirm your choice

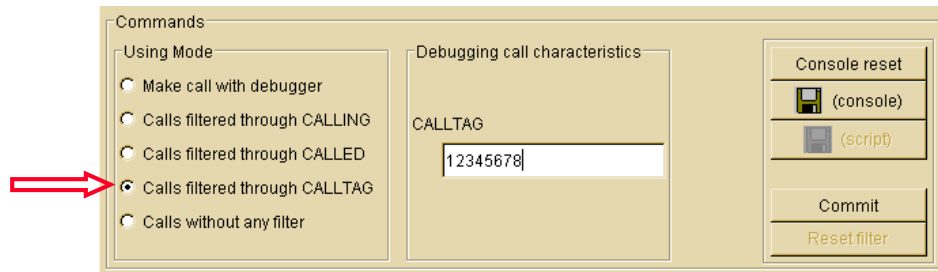
The calling number must be exactly the number received from the public operator

- Commands window
 - Calls filtered through CALLED



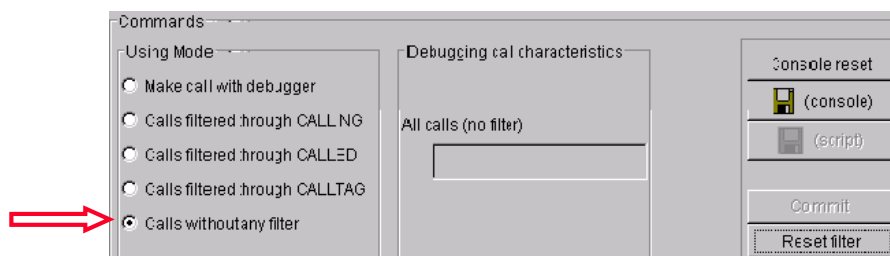
- Called number: enter called number
- "Commit" button: to confirm your choice
- "Reset filter" button: to reset this filter, to stop the trace in the console

- Commands window
 - Calls filtered through CALLTAG



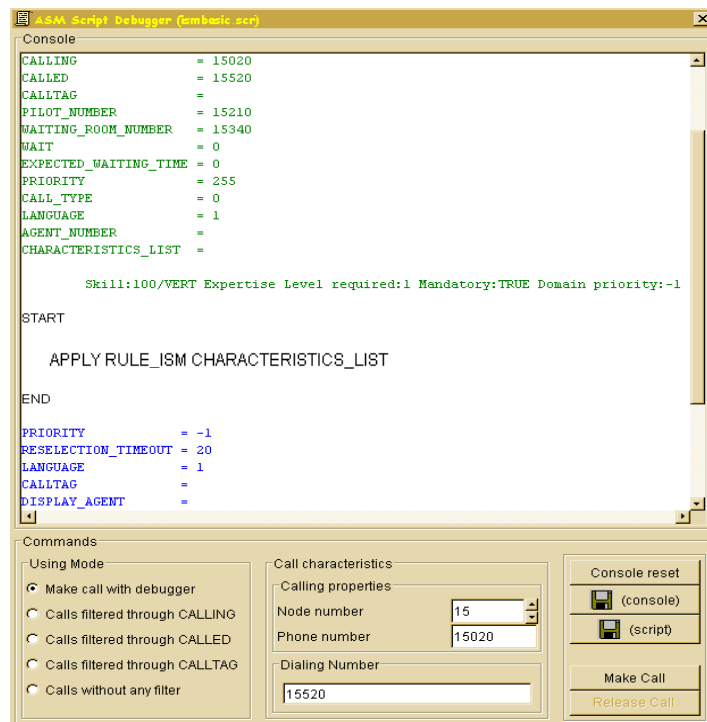
- CALLTAG: enter calltag number
- Commit: to confirm your choice

- Commands window
 - Calls without any filter



-No option, commit your choice to confirm this using mode

■ Console window part



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Example:

```
14h40:50 -----Call time
NODE           = 15      Node in which the call arrives
NEQT           = 576     Trunk equipment number
SEQUENCE       = 1       Sequence number
CALLING        = 15020   Calling number (we can filter it)
CALLED         = 15520   Called number (usually a pilot or a statistic pilot)
CALLTAG        =        Calltag number, if exists
PILOT_NUMBER    = 15210   Pilot number, routing pilot
WAITING_ROOM_NUMBER = 15340 Waiting Room number
WAIT           = 0       Waiting time for this call (for example in sequence 2 or more)
EXPECTED_WAITING_TIME = 0 Expected Waiting Time for this call
PRIORITY       = 255     Priority, if manage in statistic pilot or in a previous sequence
CALL_TYPE      = 0       0 means telephone type
LANGUAGE       = 1       80 different Languages are available
AGENT_NUMBER    =        If direct call to agent
CHARACTERISTICS_LIST =    See profile details
```

Skill:100/VERT Expertise Level required:1 Mandatory:TRUE Domain priority:-1

```
START
APPLY RULE_ISM CHARACTERISTICS_LIST
END
```

```
PRIORITY       = -1      Call priority after this sequence
RESELECTION_TIMEOUT = 10 Reselection timeout, to execute the script again
LANGUAGE       = 1       Language after this sequence
CALLTAG        =        Calltag after this sequence
DISPLAY_AGENT  =        String to display if the building block exits

Used Rules:
Rule use in this sequence
ISM
Idle

AGENTS_LIST:
Agent list with the cost and the remote PG for remote agent
15100 mandatory skills Cost=0
15101 mandatory skills Cost=0
13100 mandatory skills Cost=0 (remote PG = 15441)
```

Context

equivalent of:
()>adm_acd -salb
option 200
0 p -talb

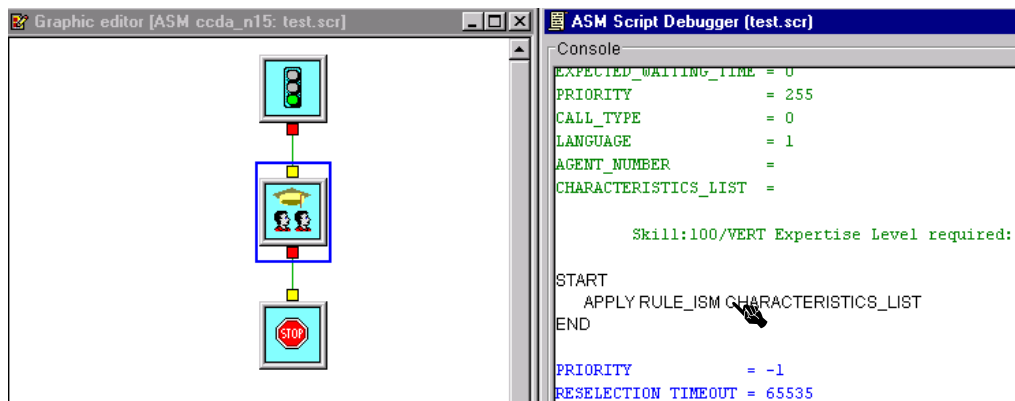
Script

equivalent of:
()>adm_acd -salb
option 100
0 p -tscript

Result

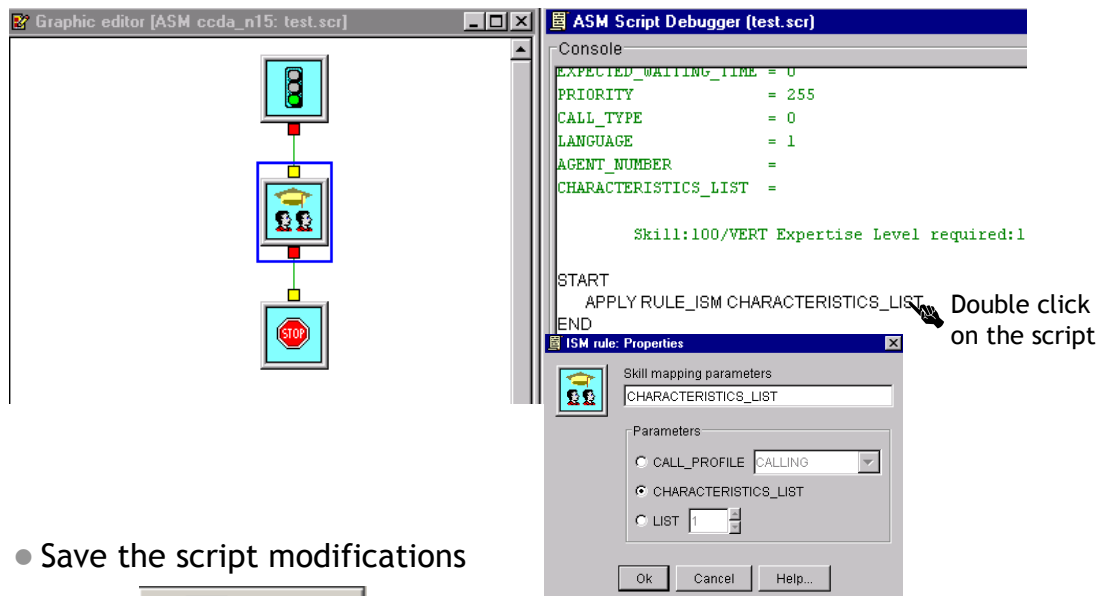
equivalent of:
()>adm_acd
option 200
0 p -talb

■ Interaction between console and graphic



- By rolling over the script using the mouse, the used Building Block is framed
 - So , it 's possible to follow the script step by step

■ Modify the script using the console part




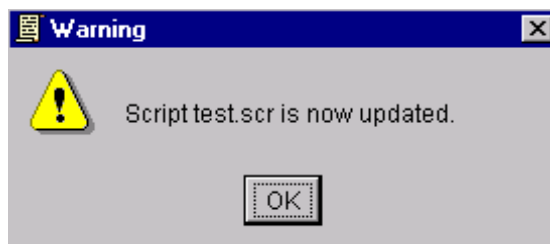
● Save the script modifications



- New building blocks can't be added from the debugger !!

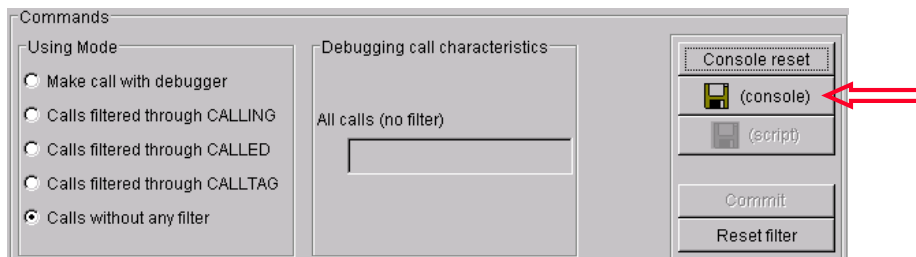
If you click on the script, you can open the building block associated, change value or parameter in the properties window.

If properties have been changed, you must save them with the button  (script) to update the script.



Remark: you cannot add any new building block in the script through this interface.

■ Save the content of the console part



-"(console)" button allows you to create a text file with all information from the console part

"Console reset" button allows resetting the console windows part.

HANDS-ON EXERCISES

OBJECTIVE

- To learn how to generate several agent sub-lists & to use the debugger

MANAGEMENT

1. Modify the agent skills
 - Agent_1(3X500)
 - Language: English / level 9
 - Insurance: Car / level 9
 - Agent_2 (3X501)
 - Language: English / level 9
 - Insurance: Car / level 4
 - Insurance: Home / level 9
 - Don't modify the call Profile 1
 - Language: English / level 5 / mandatory
 - Insurance: Car / level 8 / mandatory
2. Keep on using the "ISM_idle" script, created in the previous practical work.
Call the "Car Insurance" statistic pilot (3X650)
Which agent(s) is (are) rung?

3. Create a script (“reselect”) which will generate several agent sub-list;
So, agents who have all required skills, but whose skill level is lower than what is required in the call profile will be able to be selected.
Call the “Car Insurance” statistic pilot (3X650)
Which agent(s) is (are) rung?
What is the sub-list content?
4. Using the debugger tool, check the content of the sub-list, and the script sequence number
What is the maximum number of sequence for a script?

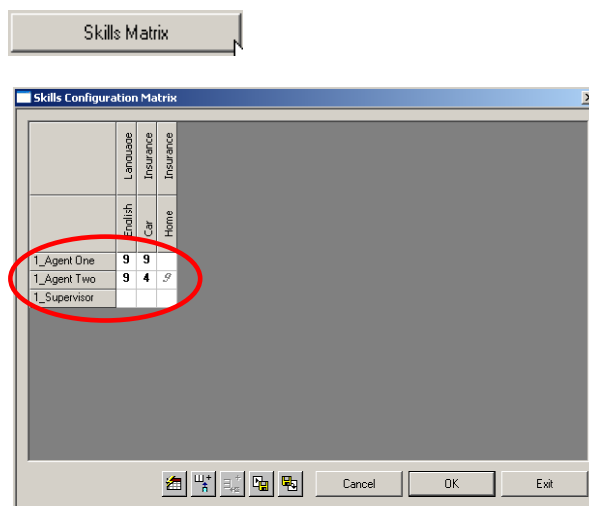
HANDS-ON EXERCISES SOLUTIONS

OBJECTIVE

- To learn how to use ISM rule & to generate several agent sub-lists

MANAGEMENT

1. Modify the agent skills
 - Agent_1(3X500)
 - Language: English / level 9
 - Insurance: Car / level 9
 - Agent_2 (3X501)
 - Language: English / level 9
 - Insurance: Car / level 4
 - Insurance: Home / level 9
 - From the CCs, Configuration / Agent



- Don't modify the call Profile 1, which is attached to the statistic pilot 3X650
 - Language: English / level 5 / mandatory
 - Insurance: Car / level 8 / mandatory

2. Keep on using the "ISM_idle" script, created in the previous practical work.

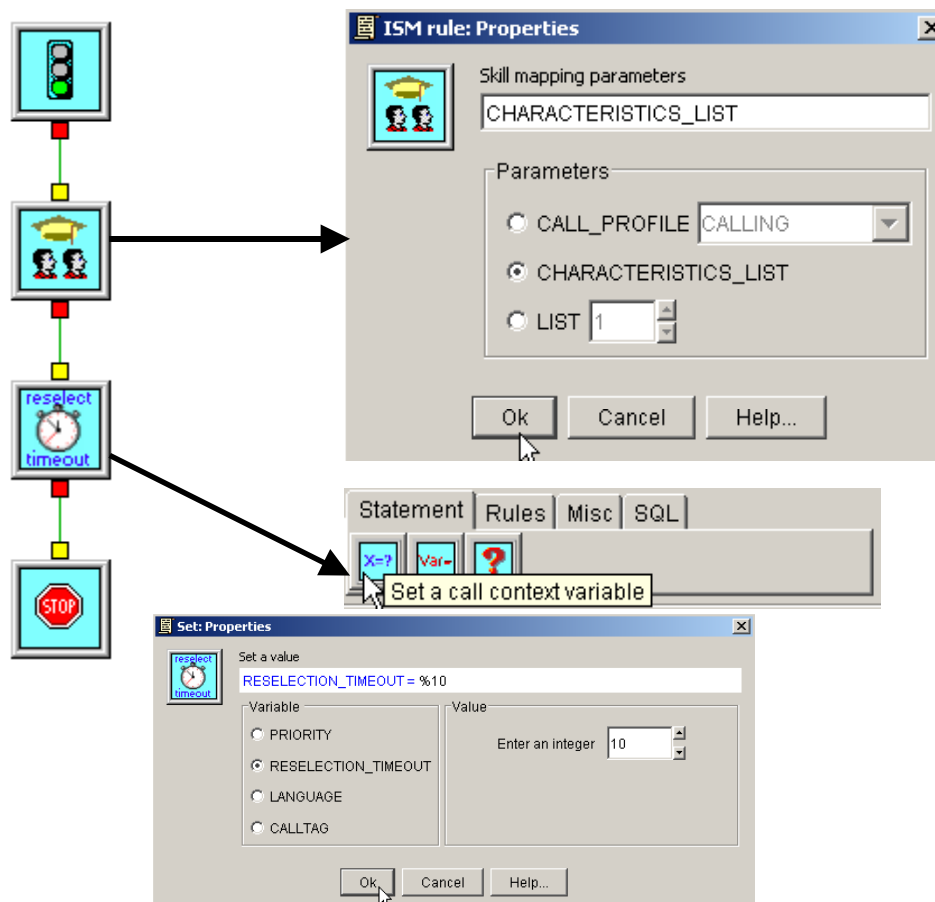
Call the "Car Insurance" statistic pilot (3X650).

Only Agent_1 can be rung, because Agent_2 car skill level is lower than what is requested

- If the agent_1 is logged on (present for the distribution), only the 1st sub-list will be generated (agent 3X500); if this agent is idle, he will be rung; if this agent is not available (busy, ...), the call will be parked in the waiting room
- If the agent_1 is logged off, or in unavailable state (not present for the distribution), the 2nd sub-list will be generated (agent 3X501);

3. Create a script ("reselect") which will generate several agent sub-list;

So, agents who have all required skills, but whose skill level is lower than what is required in the call profile will be able to be selected.



The purpose of the reselection timeout building block is to re-execute the script after a period (in this example, 10 second) if no agent is available; so a 2nd sub_list (and a 3rd...) can be generated

Attach the "reselect" script to the ACR pilot

Call the “Car Insurance” statistic pilot (3X650)

Which agent(s) is (are) rung?

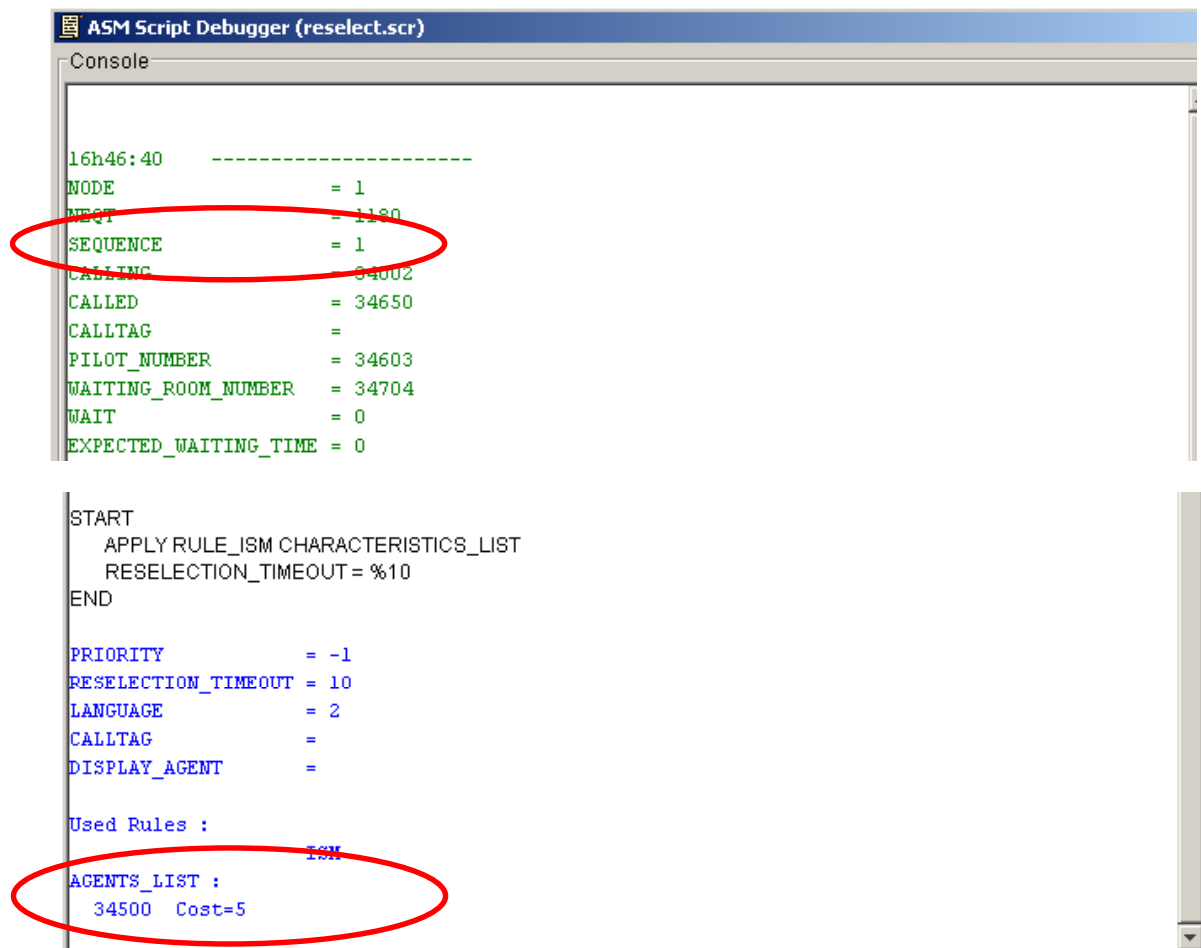
Both can be rung (3X500 & 3X501), but 3X501 can be rung only after the reselection timeout, because Agent_two car skill level is lower than what is requested

What is the sub-list content?

1st sub-list: 3X500

2nd sub-list: 3X501

4. Using the debugger tool, check the content of the sub-list, and the script sequence number
If agent one (3X500) is available, the script will be done only once



```

ASM Script Debugger (reselect.scr)
Console
16h46:40 -----
NODE = 1
NEQT = 1180
SEQUENCE = 1
CALLING = 34002
CALLED = 34650
CALLTAG =
PILOT_NUMBER = 34603
WAITING_ROOM_NUMBER = 34704
WAIT = 0
EXPECTED_WAITING_TIME = 0

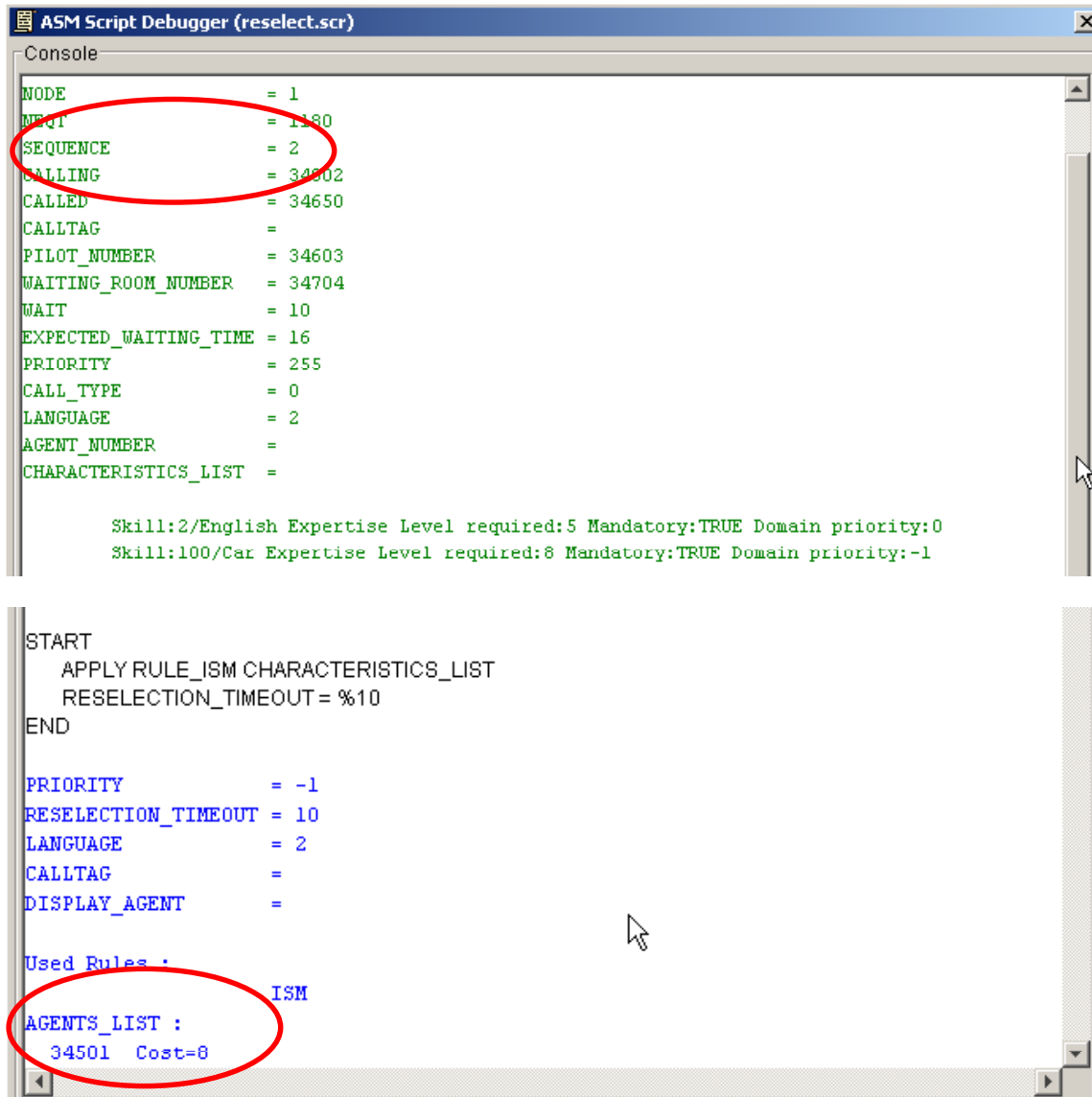
START
  APPLY RULE_ISM CHARACTERISTICS_LIST
  RESELECTION_TIMEOUT = %10
END

PRIORITY = -1
RESELECTION_TIMEOUT = 10
LANGUAGE = 2
CALLTAG =
DISPLAY_AGENT =

Used Rules :
AGENTS_LIST :
  34500 Cost=5
  
```

Put the agent_one in wrap-up (so, he is busy...)

In that case, the script will be re-executed a 2nd time and the sub-list 2 will be generated



```
ASM Script Debugger (reselect.scr)
Console
NODE = 1
REQT = 1180
SEQUENCE = 2
CALLING = 34502
CALLED = 34650
CALLTAG =
PILOT_NUMBER = 34603
WAITING_ROOM_NUMBER = 34704
WAIT = 10
EXPECTED_WAITING_TIME = 16
PRIORITY = 255
CALL_TYPE = 0
LANGUAGE = 2
AGENT_NUMBER =
CHARACTERISTICS_LIST =

Skill:2/English Expertise Level required:5 Mandatory:TRUE Domain priority:0
Skill:100/Car Expertise Level required:8 Mandatory:TRUE Domain priority:-1

START
  APPLY RULE_ISM CHARACTERISTICS_LIST
  RESELECTION_TIMEOUT = %10
END

PRIORITY = -1
RESELECTION_TIMEOUT = 10
LANGUAGE = 2
CALLTAG =
DISPLAY_AGENT =

Used Rules :
AGENTS_LIST :
  34501 Cost=8
```

What is the maximum number of sequence for a script?

21 times

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Last Called Agent rule



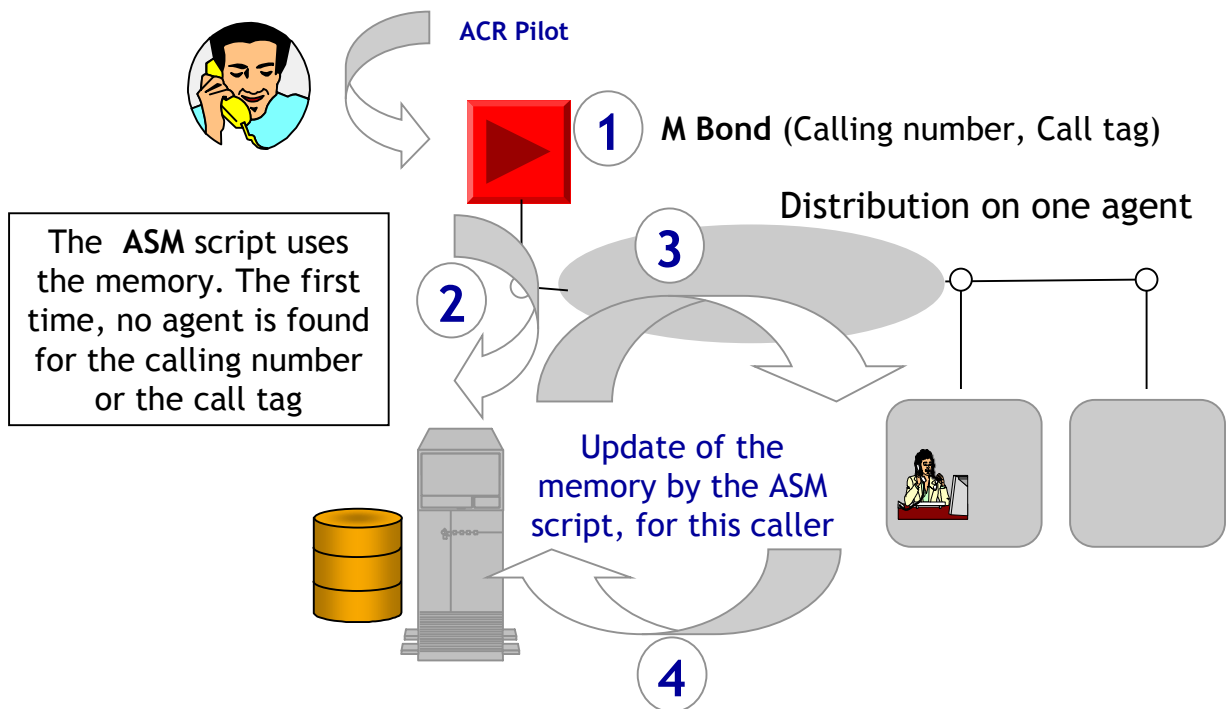
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1

OBJECTIVES

- ◆ To know how to apply the last called agent rule
- ◆ To check the trace of the last called agent

■ First customer call



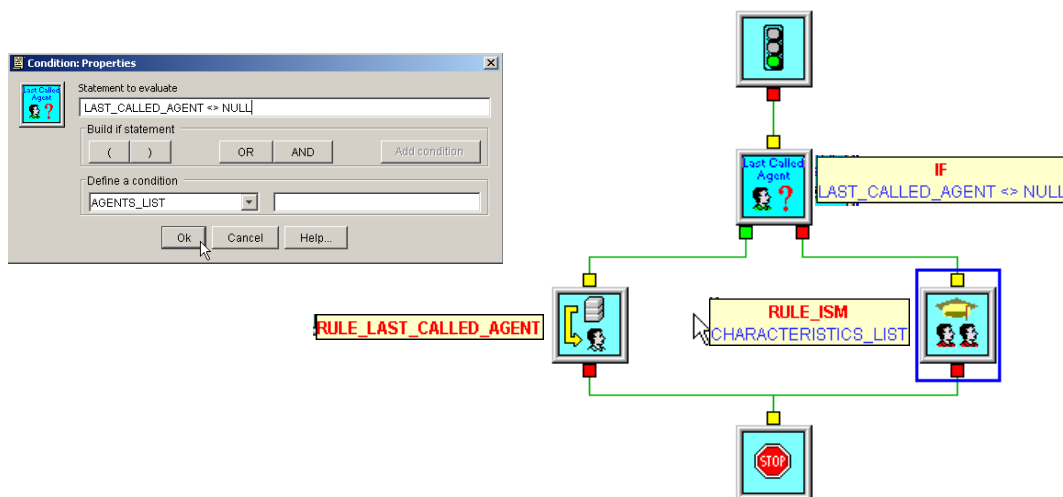
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2

- 1- Mr Bond calls the ACD and the ACD receives his identity or his Call Tag
- 2 - The rule used is the Last Called Agent (for all rules applied the last called agent is set, the caller ID and the communication status)
- 3- The caller is not known so it is distributed on an agent
- 4 - The database (memory only) is updated with the agent number and the caller information (Caller Id or Call Tag)

■ First customer call

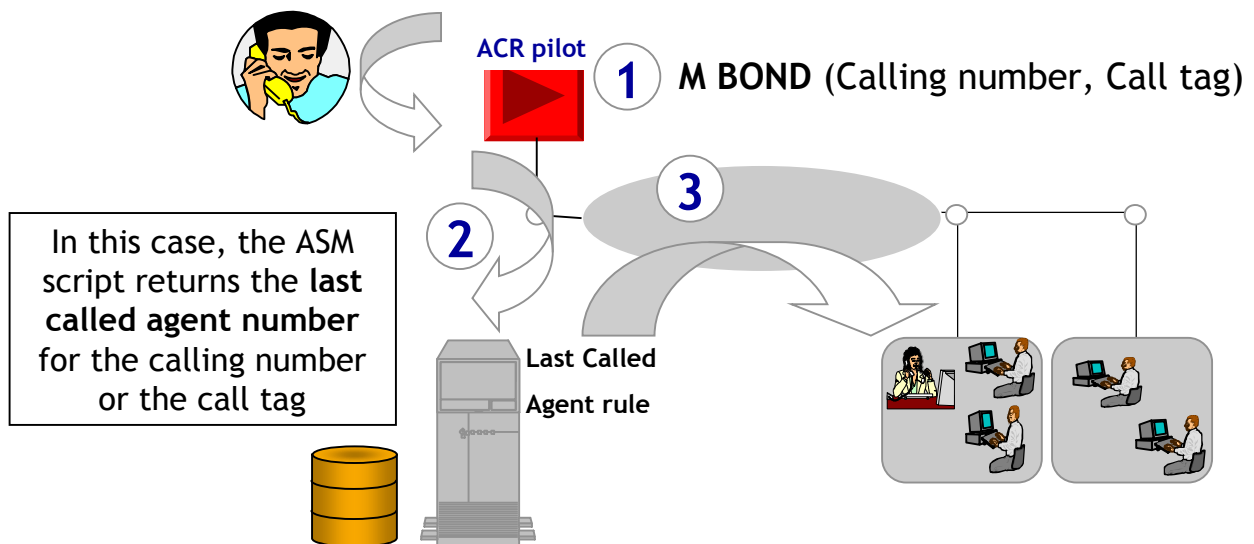
- It's possible to set up a condition, using the « IF » building block, in order to check if there is a « last called agent »



- If the « last called agent » is NULL, apply another ACR rule

■ Next customer call

- If an agent has already answered to the customer, this information is stored in the ASM server memory
 - Whatever the call status (blocked, dissuaded...) the agent number who has answered the last time to the caller is kept and can be used by the "Last Called Agent" rule.



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4

It is possible to select the last agent according to the date or the communication status ...

The information are not stored on the hard disk only in memory.

■ Information recorded in the ASM server memory

● For all calls

- The system saves in the ASM Module
 - The caller identification (Phone number and/or call tag)
 - The node number
 - Last called pilot
 - Last call date
 - Last call time

● For each "answered" call

- The system saves in the ASM Module
 - The agent number who has answered to the call
 - The status of the communication
 - ♦ Answered

The status of the communication can be used in the script

The number of calls saved is

- 4000 calls if the ASM is on the Alcatel OmniPCX Enterprise
 - 10000 calls if the ASM is on a PC with 2000 or XP
- when the maximum is reached the ASM delete 10% of the oldest calls

■ Information recorded in the ASM server memory (next)

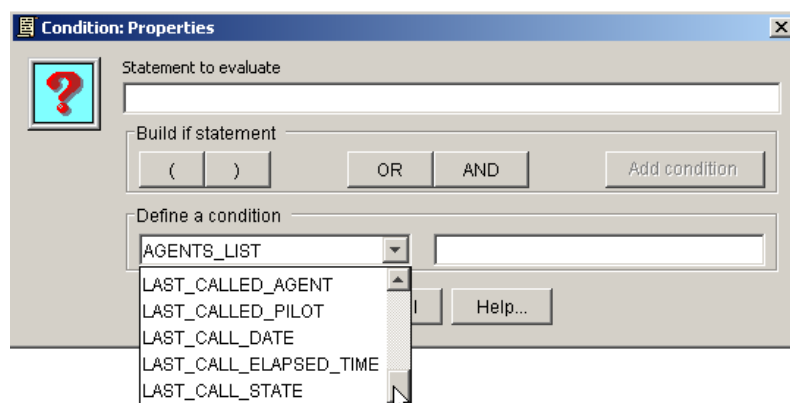
- For each unanswered call
 - The system saves in the ASM Module
 - The agent number who has answered the last time to the caller
 - The status of the communication
 - ◆ in dissuasion
 - ◆ in mutual aid
 - ◆ General forwarding mode
 - ◆ Blockage mode
 - ◆ Drop out on ringing
 - ◆ Drop out on waiting

■ The ASM memory is emptied when the ASM process is re-started.

- MAIN_AFE re-starting has no effect on the ASM memory.

Information available in the server memory

- "LAST_CALL_DATE": the date when the call arrived the last time
- "LAST_CALL_ELAPSED_TIME": time difference between the new call of this caller and the previous one
- "LAST_CALLED_PILOT": the pilot's number who treated this call the last time
- "LAST_CALL_STATE": previous status of the call
 - "DISSUADED": through dissuaded queue
 - "MUTUAL_AID": through mutual aid queue
 - "ANSWERED": the call was answered
 - "GENERAL_FORWARDING": connected to forwarding mode
 - "BLOCKED": connected to blocked mode
 - "DROP_OUT_WAITING": abandon in a waiting room
 - "DROP_OUT_RINGING": abandon on ringing
- "LAST_CALLED_AGENT": Last agent who processed the call the last time



■ During script execution, some keywords are available & can be tested

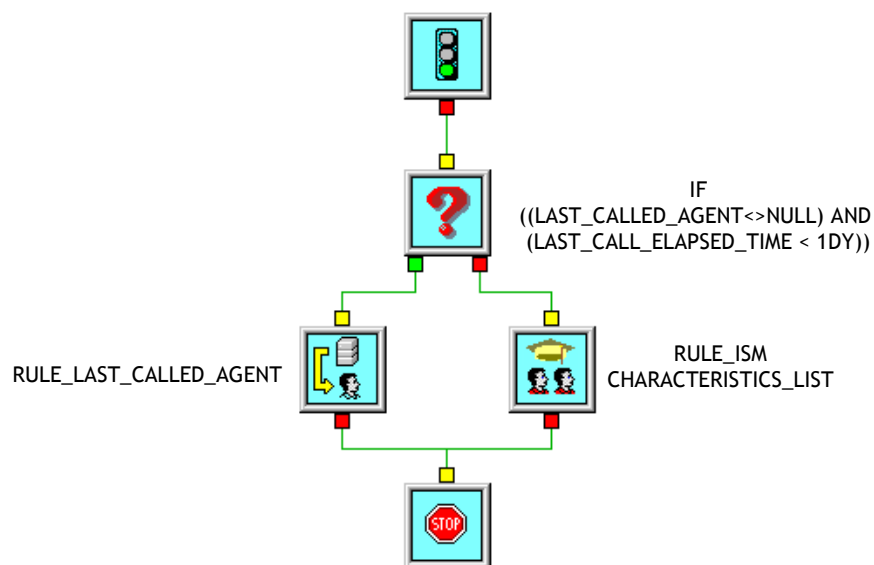
- LAST_CALLED_AGENT ¹
 - The agent who has answered the last time to the caller
- LAST_CALLED_PILOT ²
 - The routing pilot number
- LAST_CALLED_DATE ³
- LAST_CALLED_ELAPSED_TIME ⁴
 - The duration between the last call time and actually time
- LAST_CALLED_STATE ⁵
 - 1: the last call has been sent to a dissuaded queue
 - 2: the last call has been answered
 - 3: the last call has been sent to a mutual aid queue
 - 4: the last call has followed the GFW mode
 - 5: the last call has followed the Blockage mode
 - 6: the last call has been abandoned on waiting
 - 7: the last call has been abandoned on ringing



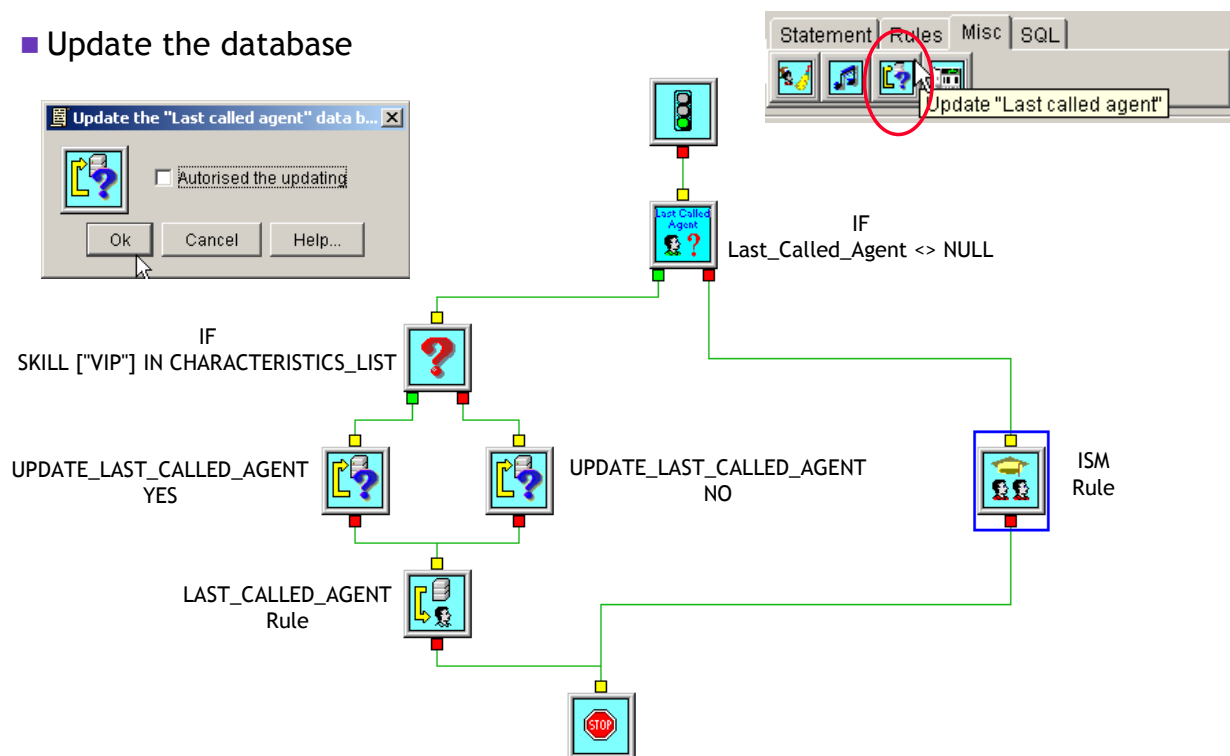
```
2034334002      1      2      5      3
6 call(s),      1, [34500], [34603], 2, Thu Apr 3 09:28:54 2008
```

These data are available using the “adm_acd ASM server IP@ -salb” command (option 28; refer to the end of the chapter)

■ Apply the “Last Called Agent” rule



■ Update the database



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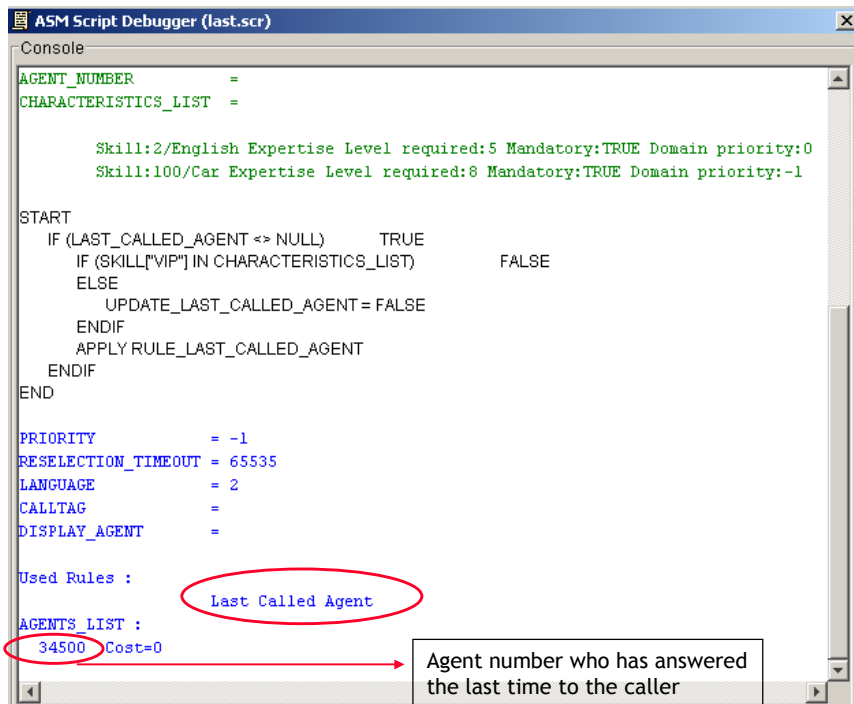
9

By the ACR script it is possible to update or not the internal data base ASM.

In the script, the variable "UPDATE_LAST_CALLED_AGENT" could be set to "YES" or "NO", that indicates if the data base should be update for the running call or not.

This instruction could be used at any time in the script, for example after testing the called service or after testing the priority of the call or the language of the caller.

If this instruction is not used in the script, the default value is "YES", and so there is an update of the database for each call.



```
ASM Script Debugger (last.scr)
Console
AGENT_NUMBER =
CHARACTERISTICS_LIST =

Skill:2/English Expertise Level required:5 Mandatory:TRUE Domain priority:0
Skill:100/Car Expertise Level required:8 Mandatory:TRUE Domain priority:-1

START
  IF (LAST_CALLED_AGENT <> NULL)      TRUE
    IF (SKILL["VIP"] IN CHARACTERISTICS_LIST)  FALSE
    ELSE
      UPDATE_LAST_CALLED_AGENT = FALSE
    ENDIF
    APPLY RULE_LAST_CALLED_AGENT
  ENDIF
END

PRIORITY      = -1
RESELECTION_TIMEOUT = 65535
LANGUAGE      = 2
CALLTAG       =
DISPLAY_AGENT =

Used Rules :
Last Called Agent

AGENTS_LIST :
34500 Cost=0

Agent number who has answered
the last time to the caller
```

■ To display dynamic data

● adm_acd IP@ of ASM server -salb

□ option 28

- number: calling number (CLID)
- *: to list all the calling numbers

```
28 *
write: lqw= 18, nbe= 18
Option: -salb

----- Agent Selector Module -----
Release : 2.5.3
Mode : MAIN
Not duplicated

Configuration file : /DHS3data/afe/.inialb
  [Alb Parameters]
    StatPeriod 5
    DualTimeOut 200
    NbMaxAgent 200

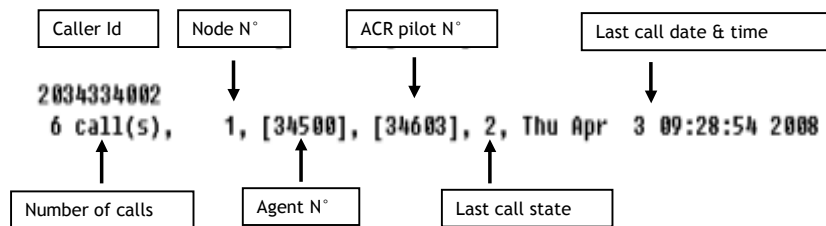
  [Sites Description]
    Site_1 LOCAL_DHS3 localhost router
-----

34002
86 call(s),      1, [34500], [34603], 2, Wed Apr  2 17:16:51 2008

2034334002
6 call(s),       1, [34500], [34603], 2, Thu Apr  3 09:28:54 2008
```

■ Dynamic data parameters explanation

- adm_acd IP@ of ASM server -salb
 - option 28



HANDS-ON EXERCISES

OBJECTIVE

- To learn how to write some ASM scripts using the Last Called Agent rule

MANAGEMENT

1. Write the script ASM using the Last Called Agent rule.
 - For the first sequence, if an agent has already answered to the caller the day before, the system gives the priority 2, the reselection time out 10 and the last called agent rule is applied.

Note: *“the system gives a priority 2” means that a call selection priority will be defined in the script, & this value will overwrite the call selection priority declared in the distribution rule*

- If no agent has answered or the elapsed time is greater than 1 day, the system applies the priority 8, the reselection time out 20 and the ISM rule is applied (according to the statistic pilot call profile).
- But if the sequence is greater than 1 the system applies priority 2 and the ISM rule is applied according to the statistic pilot call profile.

START

```

IF (SEQUENCE = %1)
    IF ((.....) AND (..... < 1DY))
        .....
        .....
        APPLY .....
    ELSE
        .....
        .....
        .....
    ENDIF
ELSE
    .....
    .....
ENDIF
END
```

Test the script and Use the Debugger interface to see the different sequence of the script execution.

Restart the ASM process to clean up the memory:

```
( ) xa..... > ps -edf | grep alb
```

Check the process id

```
( ) xa..... > kill -9 "process id"
```

2. Using the previous script, the ACR administrator wants to route the calls to the agent who has answered the last time to the caller if the callers call the same day the same service (means the same routing pilot).

START

IF (SEQUENCE = %1)

**IF ((LAST_CALLED_AGENT <> NULL) AND (.....) AND
(.....))**

PRIORITY = %2

RESELECTION_TIMEOUT = %10

APPLY RULE_LAST_CALLED_AGENT

ELSE

PRIORITY = %8

RESELECTION_TIMEOUT = %20

APPLY RULE_ISM CHARACTERISTICS_LIST

ENDIF

ELSE

PRIORITY = %2

APPLY RULE_ISM CHARACTERISTICS_LIST

ENDIF

END

Test the script and Use the Debugger interface to see the different sequence of the script execution.

3. Using the previous script, the ACR administrator wants to assign a higher priority if the caller called the same day the same service and he abandoned in the waiting room or in ringing.

```

START
  IF (SEQUENCE = %1)
    IF ((LAST_CALLED_AGENT <> NULL) AND (.....) AND
        (.....)AND ((.....) OR (.....)))
      PRIORITY = %0
      RESELECTION_TIMEOUT = %10
      APPLY RULE_LAST_CALLED_AGENT
    ELSE
      PRIORITY = %8
      RESELECTION_TIMEOUT = %20
      APPLY RULE_ISM CHARACTERISTICS_LIST
    ENDIF
  ELSE
    PRIORITY = %2
    APPLY RULE_ISM CHARACTERISTICS_LIST
  ENDIF
END
  
```

Test the script and Use the Debugger interface to see the different sequence of the script execution.

HANDS-ON EXERCISES SOLUTIONS

OBJECTIVE

- To learn how to write some ASM scripts using the Last Called Agent rule.

MANAGEMENT

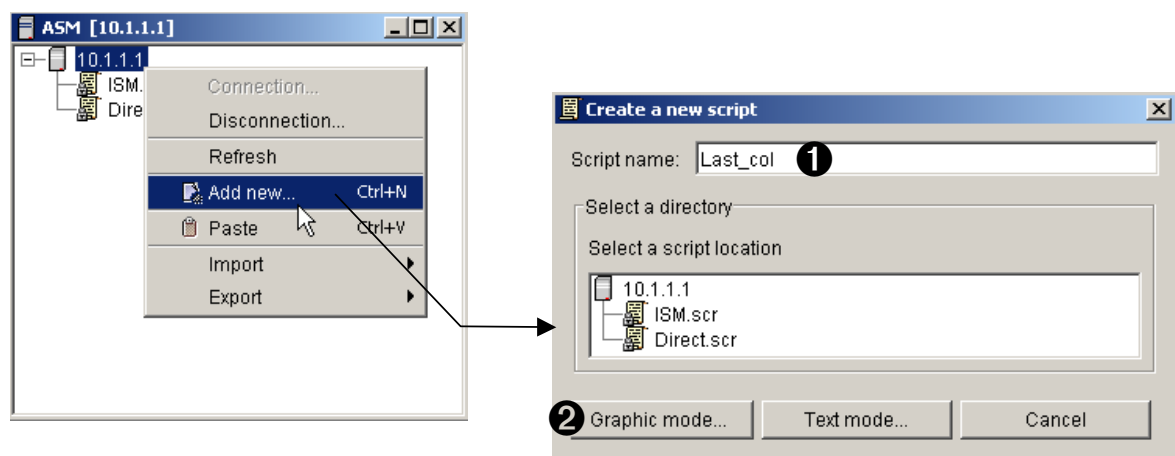
1. Write the ASM script using the Last Called Agent rule.

For the first sequence, if an agent has answered to the caller the day before the system gives the priority 2, the reselection time out 10 and the last called agent rule is applied.

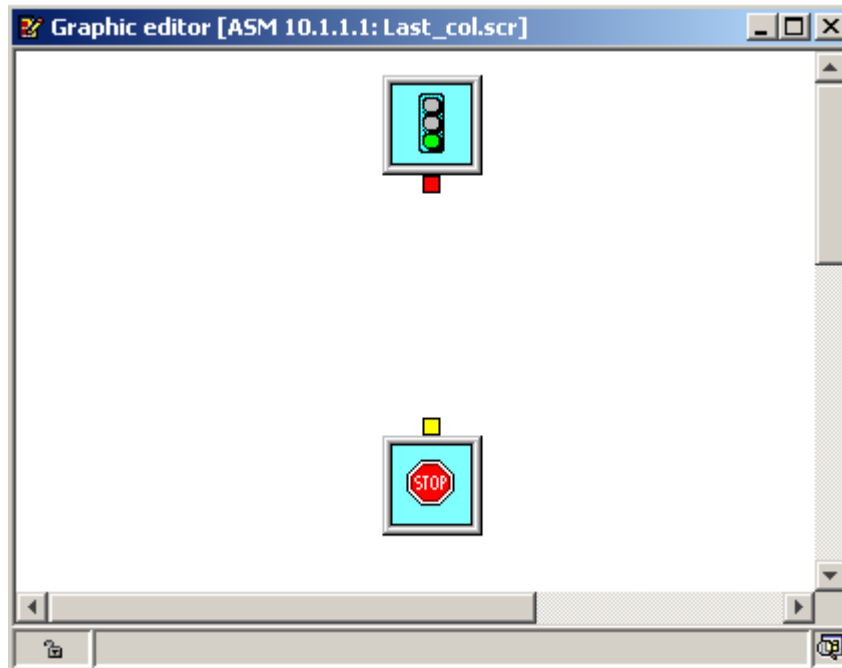
If no agent has answered or the elapsed time is greater than 1 day, the system applies the priority 8, the reselection time out 20 and the ISM rule is applied (according to the statistic pilot call profile).

But if the sequence is greater than 1 the system applies priority 2 and the ISM rule is applied (according to the statistic pilot call profile).

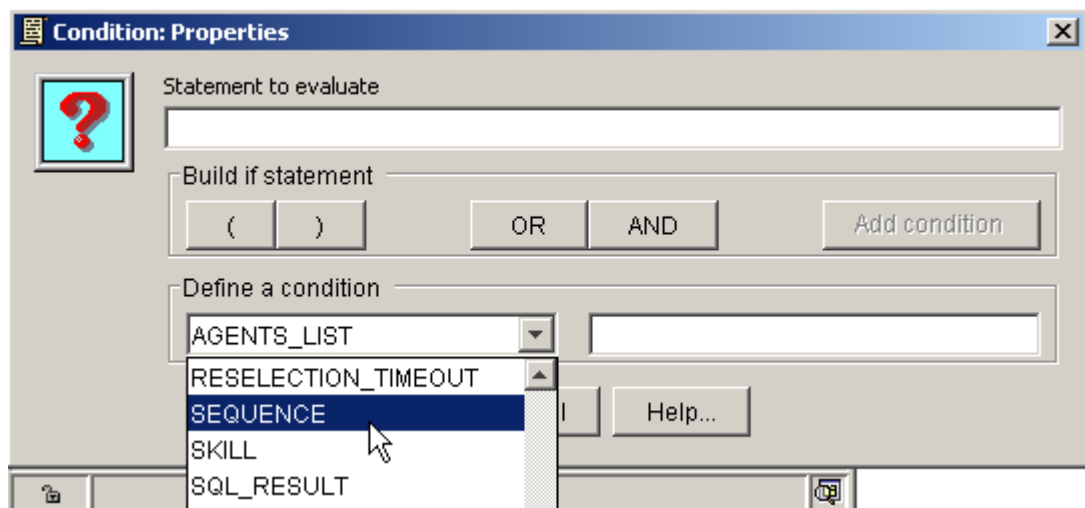
- 1.1. Open the ASM graphic editor.

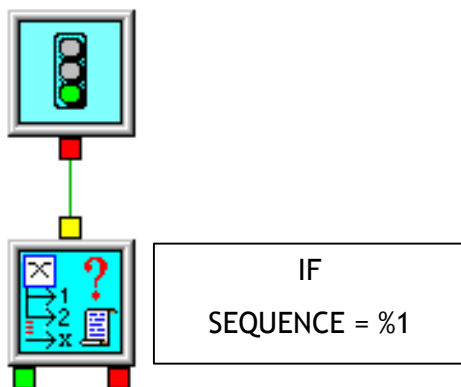
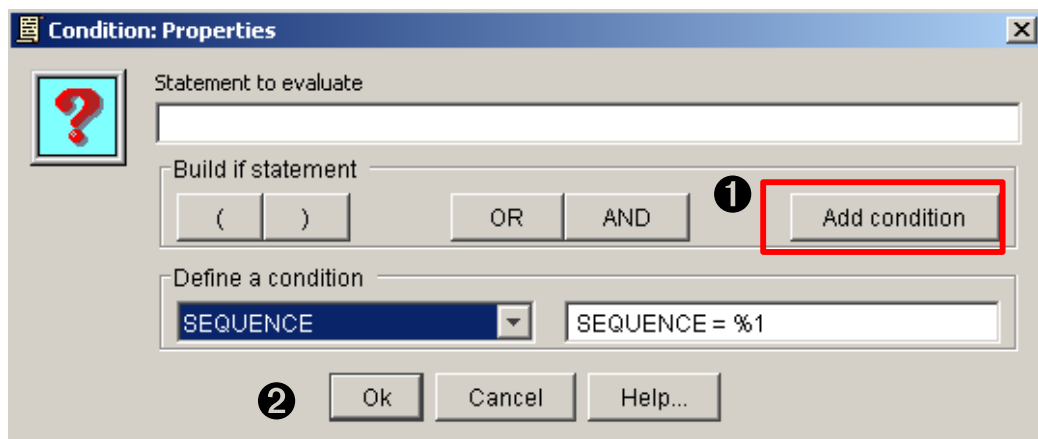
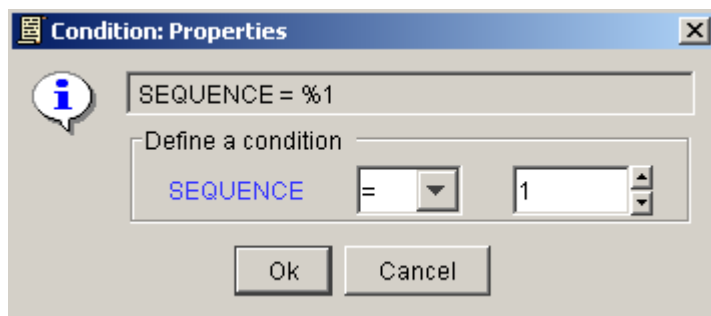


- 1.2. Write the script ASM using the Last Called Agent rule.

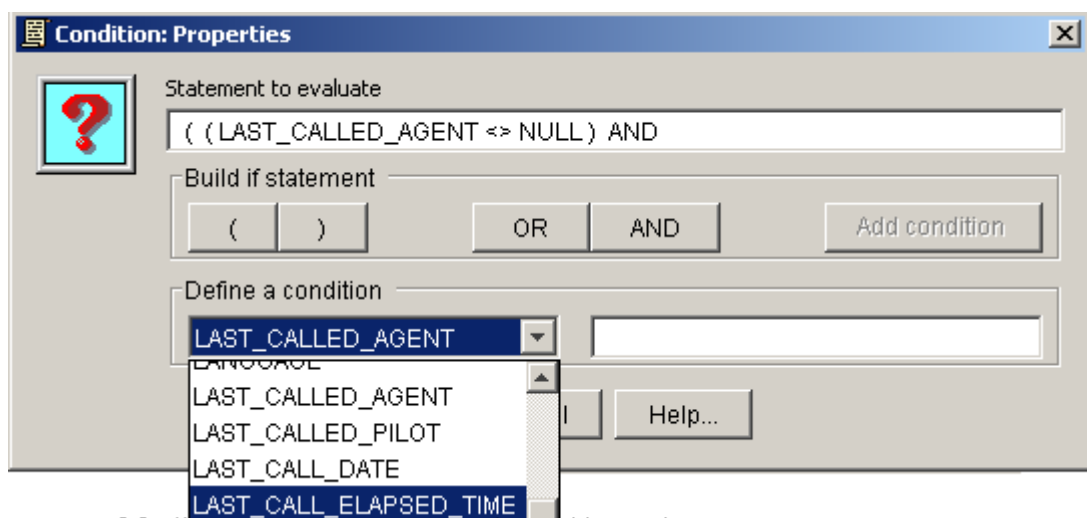
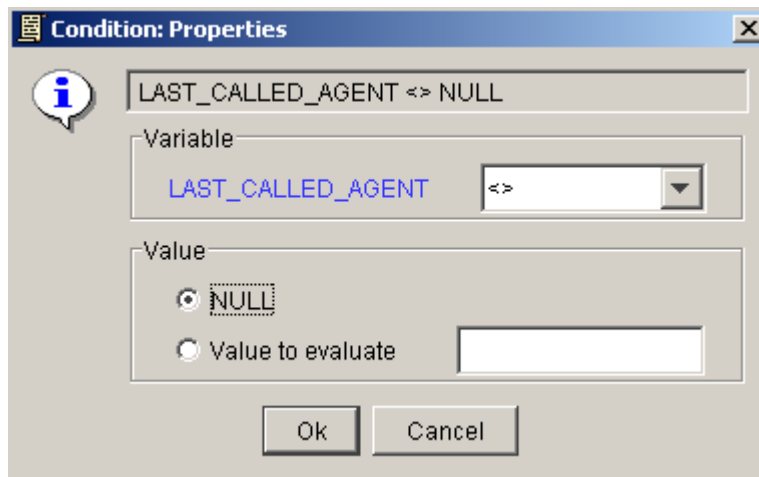
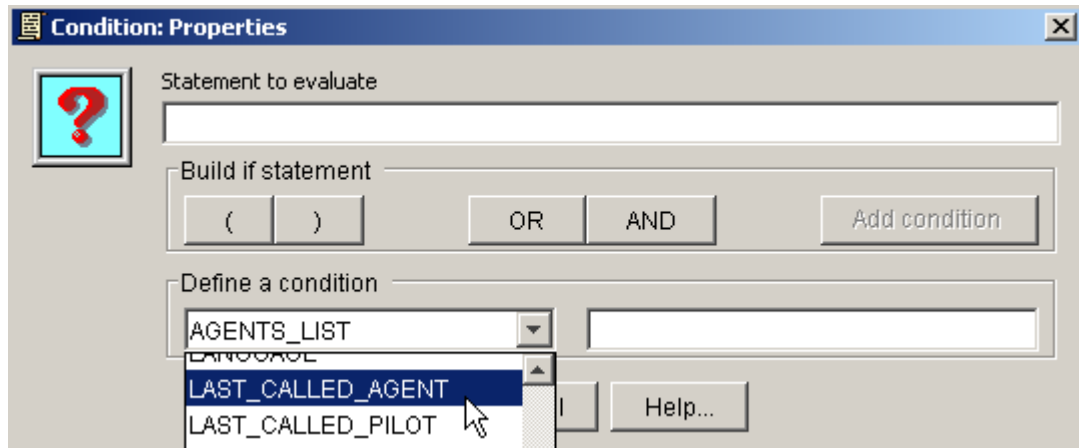


IF (SEQUENCE = %1)





IF ((LAST_CALLED_AGENT <> NULL) AND (LAST_CALL_ELAPSED_TIME < 1DY))



Condition: Properties

LAST_CALL_ELAPSED_TIME < 1DY

Variable
LAST_CALL_ELAPSED_TIME < [v]

Value
☐ NULL
☒ Duration
 0 WE
 1 DY
 0 HR
 0 MN
 0 SD

Ok Cancel

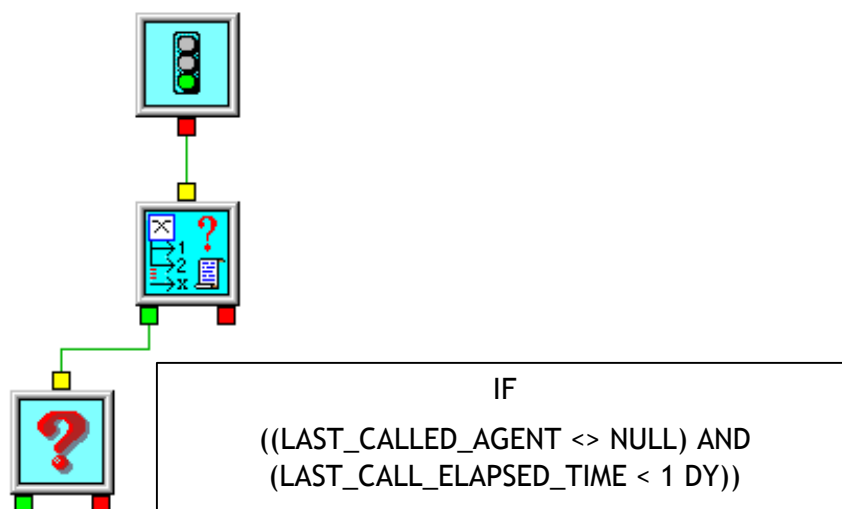
Condition: Properties

Statement to evaluate
ST_CALLED_AGENT <> NULL) AND (LAST_CALL_ELAPSED_TIME < 1DY))

Build if statement
() OR AND Add condition

Define a condition
LAST_CALL_ELAPSED_TIME [v]

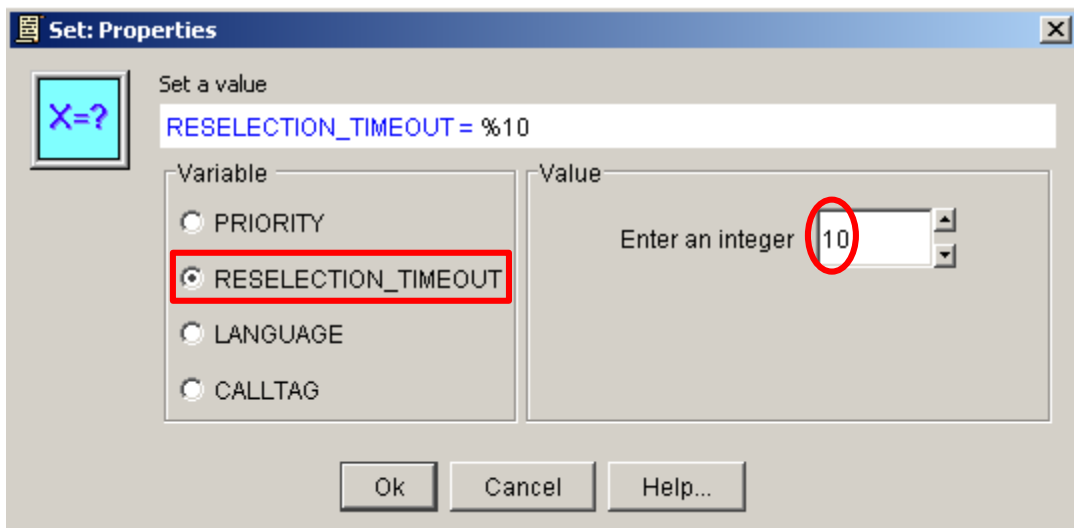
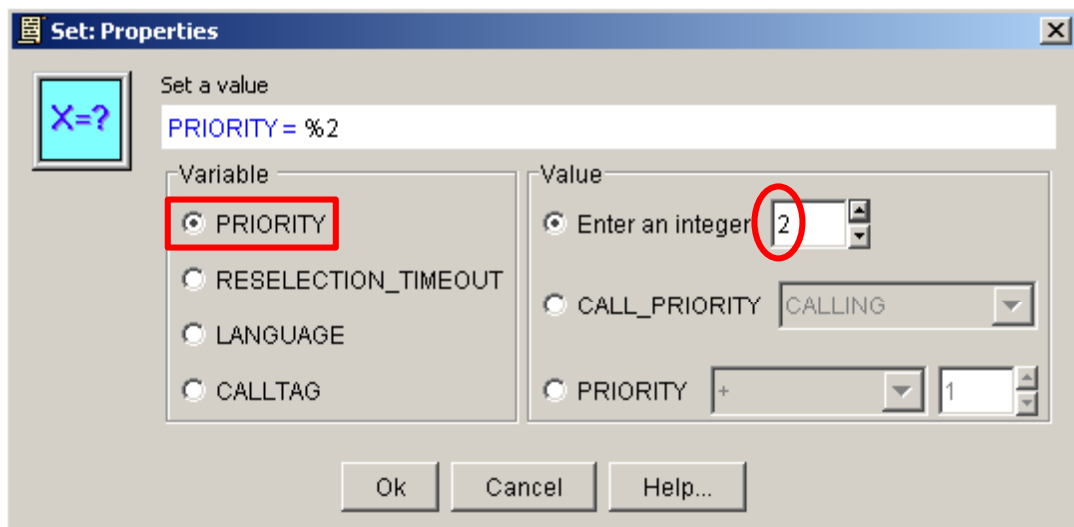
Ok Cancel Help...

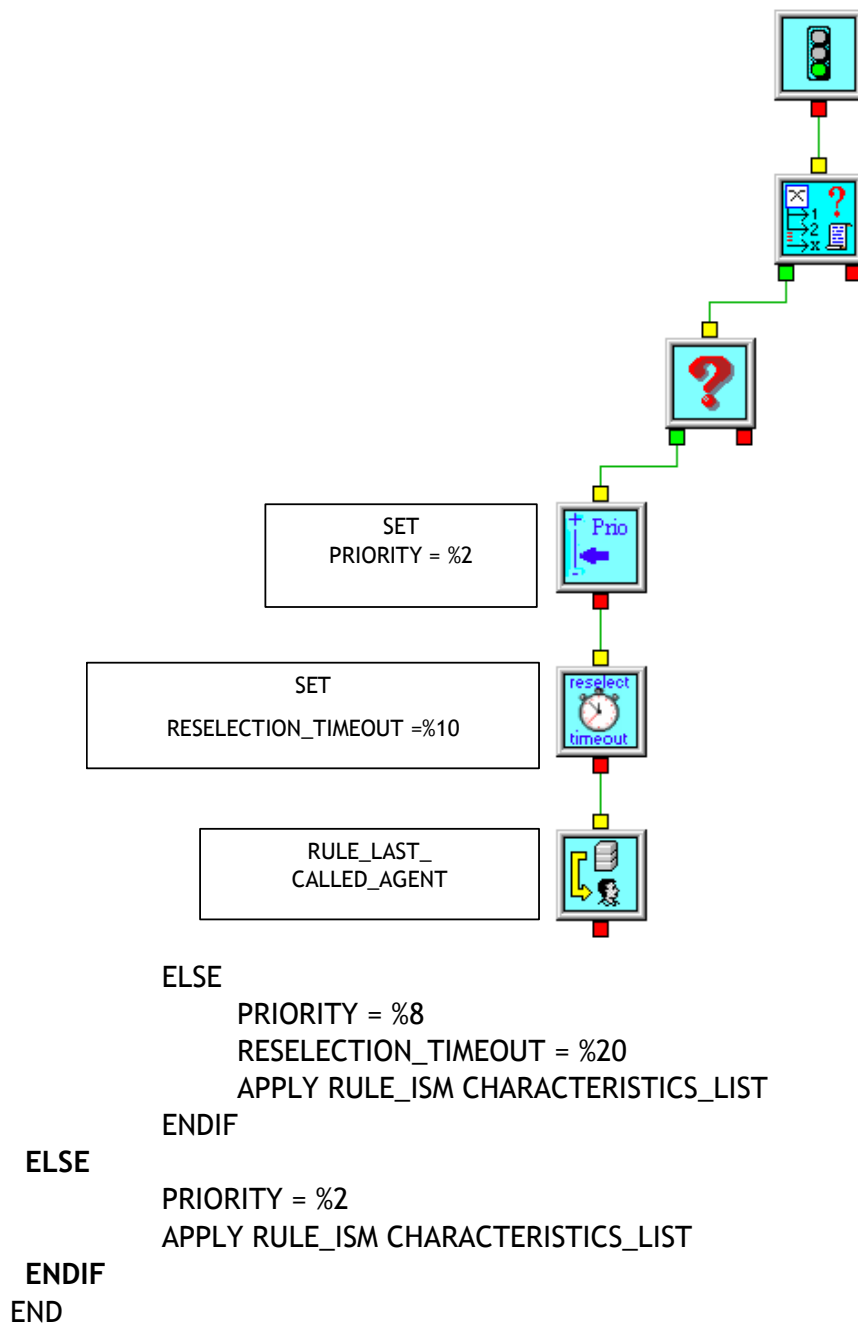


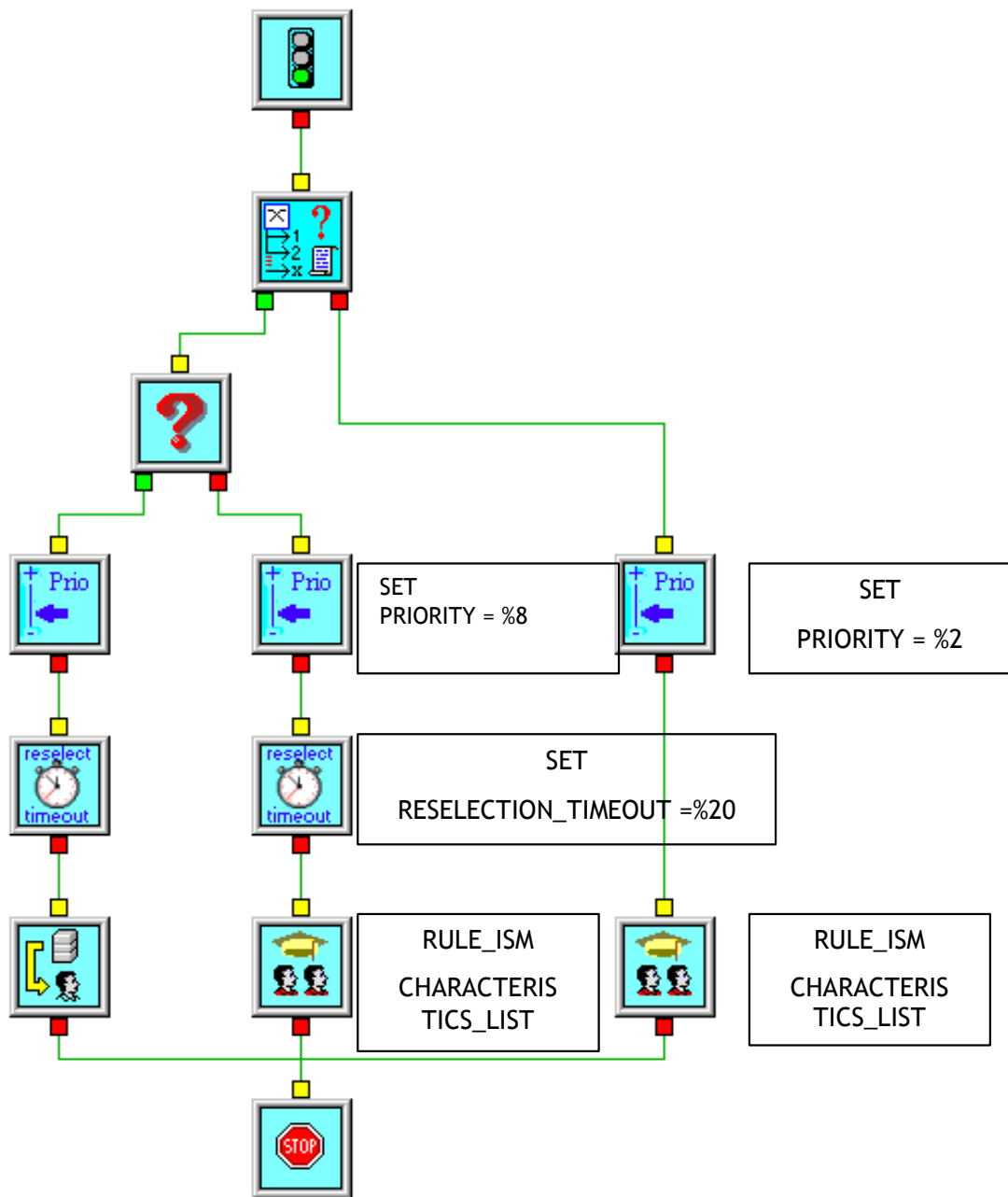
PRIORITY = %2

RESELECTION_TIMEOUT = %10

APPLY RULE_LAST_CALLED_AGENT

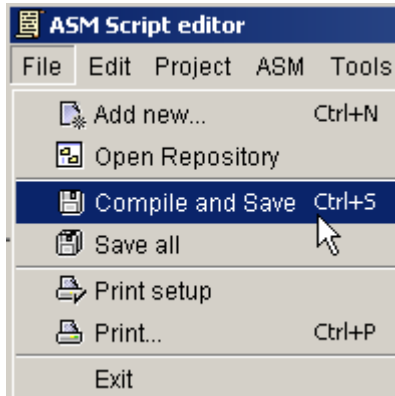




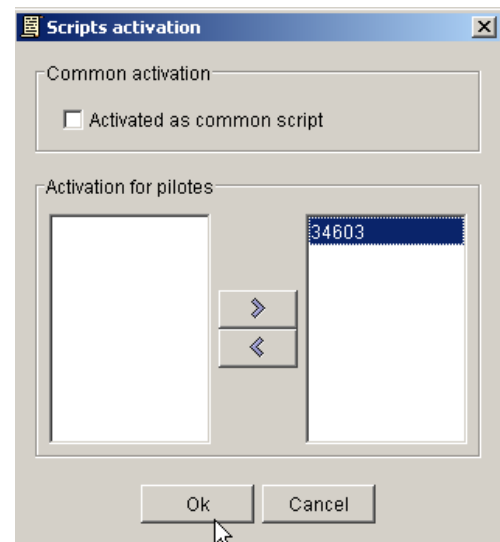
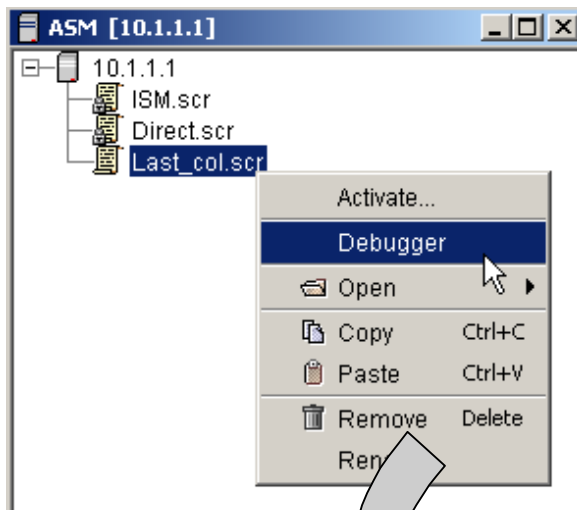


- 1.3. Test the script and Use the Debugger interface to see the different sequence of the script execution.

Save and compile the "Last_col" script.



Open the Debugger interface to test the script.



Restart the ASM process to clean up the memory:

```
( ) xa..... > ps -edf | grep alb
```

Check the process id

```
( ) xa..... > kill -9 "process id"
```

Using the maintenance command "adm_acd -salb", check the memory is emptied:

```
( ) xa..... > adm_acd -salb
```



The ASM server release:

```

Agent Selector Module -----
Release : 2.5.3
Mode : MAIN
Not duplicated

Configuration file : /DHS3data/afe/.inialb
[Alb Parameters]
StatPeriod 5
DualTimeOut 200
NbMaxAgent 200

[Site Description]
Site_1 LOCAL_DHS3 localhost router
-----

12                               : DUMP Memory
20 11213141516                 : DUMP Pilot!WQ!Remote!Team!Agent!Agent Network
21 number                       : DUMP object
22 node                         : DUMP info node
23 node + [cp]                  : DUMP call profile
24 node + [wbll]                : DUMP white/black list
25 node + [range]               : DUMP Range
26 [idSkillDom]                 : DUMP skill domain
27 [idSkill]                    : DUMP skill
28 num!*                         : DUMP call dynamic data
29                               : DUMP call router statistics
    
```

To check the memory

28 *

The memory is empty, so now you can test the script; the test “last called agent <> NULL” is false for the 1st customer call.

Call the statistic pilot 3x650.

See the result on the Debugger.

```

ASM Script Debugger (Last_col.scr)
Console

17h10:30 -----
NODE = 1
NEQT = 439
SEQUENCE = 1
CALLING = 2034334002
CALLED = 34650
CALLTAG =
PILOT_NUMBER = 34603
WAITING_ROOM_NUMBER = 34704
WAIT = 0
EXPECTED_WAITING_TIME = 0
PRIORITY = 255
CALL_TYPE = 0
LANGUAGE = 1
AGENT_NUMBER =
CHARACTERISTICS_LIST =

Skill:1/French Expertise Level required:5 Mandatory:TRUE Domain priority:0
Skill:100/Voiture Expertise Level required:8 Mandatory:TRUE Domain priority:
    
```

```

START
  IF (SEQUENCE = %1)      TRUE
    IF ((LAST_CALLED_AGENT <> NULL) AND (LAST_CALL_ELAPSED_TIME < 1DY)) FALSE
    ELSE
      PRIORITY = %8
      RESELECTION_TIMEOUT = %20
      APPLY RULE_ISM CHARACTERISTICS_LIST
    ENDIF
  ENDIF
END

PRIORITY          = 8
RESELECTION_TIMEOUT = 20
LANGUAGE          = 1
CALLTAG           =
DISPLAY_AGENT     =

Used Rules :
                ISM
AGENTS_LIST :
  34500 Cost=5
  
```

Here, we have used an ISM rule and the agent 34500 has been rung; pick up the call, & do an other call from the same customer set: this time, the test “last called agent <> NULL” is True

Check the memory contain:

```
( ) xa..... > adm_acd -salb
28 *
```

```

----- Agent Selector Module -----
Release : 2.5.3
Mode : MAIN
Not duplicated

Configuration file : /DHS3data/afe/.inialb
 °Alb Parameters$
   StatPeriod 5
   DualTimeOut 200
   NbMaxAgent 200

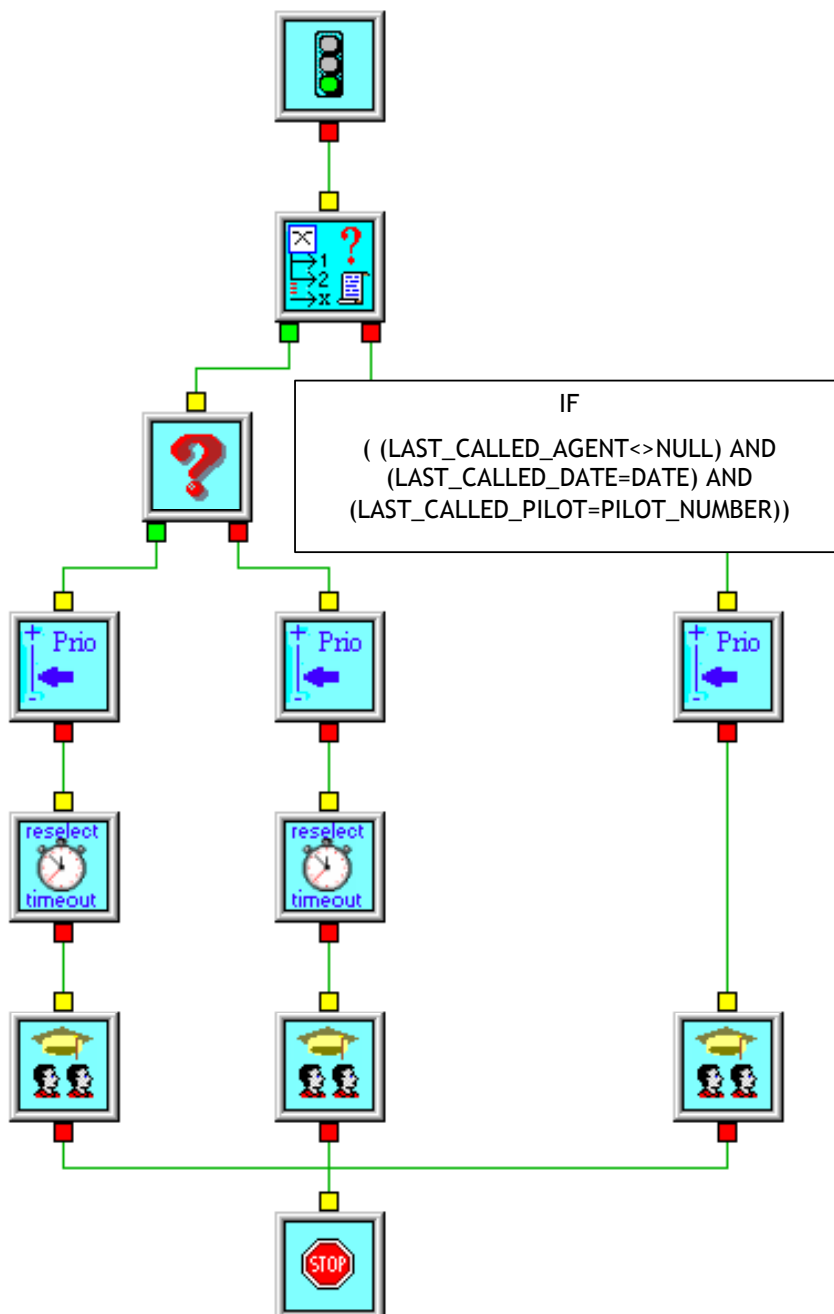
 °Sites Description$
   Site_1 LOCAL_DHS3 localhost router
-----

2034334002
2 call(s), 1, °34500$, °34603$, 2, Tue Apr 8 17:11:48 2008

```

- Using the previous script, the ACR administrator wants to route the calls to the agent who has answered the last time to the caller if the callers call the same day the same service (means the same routing pilot).

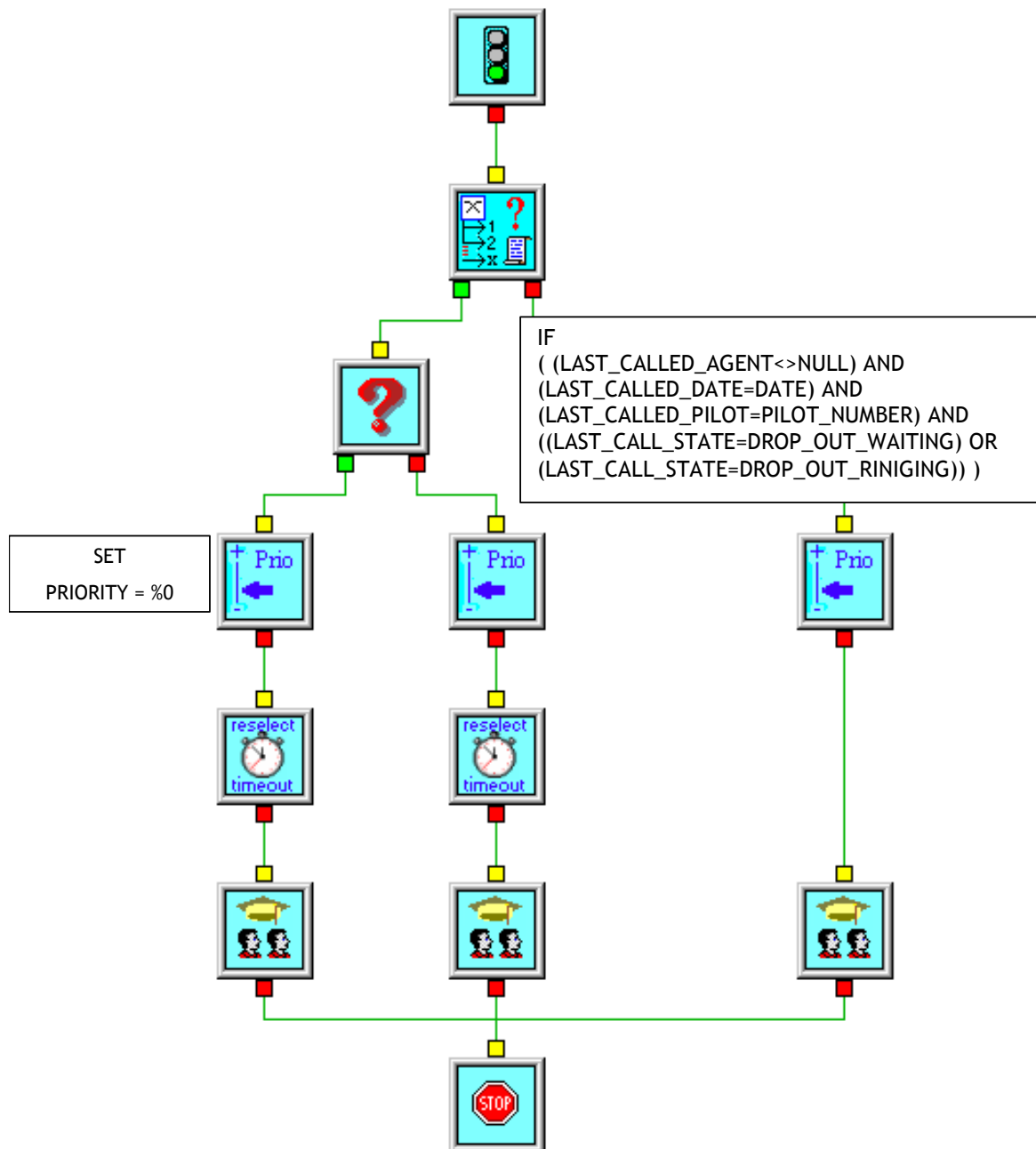
Related to the previous script, only the second IF condition has to be modified.



Test the script and Use the Debugger interface to see the different sequence of the script execution.

- Using the previous script, the ACR administrator wants to assign a higher priority if the caller called the same day the same service and he abandoned in the waiting room or in ringing.

Related to the previous script, the second IF condition and the call selection priority (for the true condition of the second IF) have to be modified.



Test the script and Use the Debugger interface to see the different sequence of the script execution.

